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The Railroad Man's Magazine

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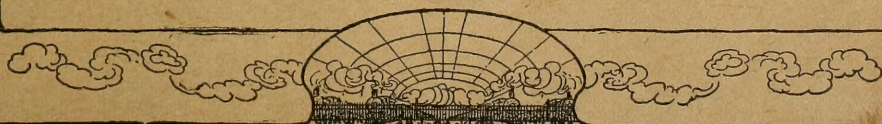
FOR

VOLUME XI

February to May, 1910

NEW YORK
THE FRANK A. MUNSEY CO., PUBLISHERS
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1910



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THE RAILROAD MAN'S MAGAZINE

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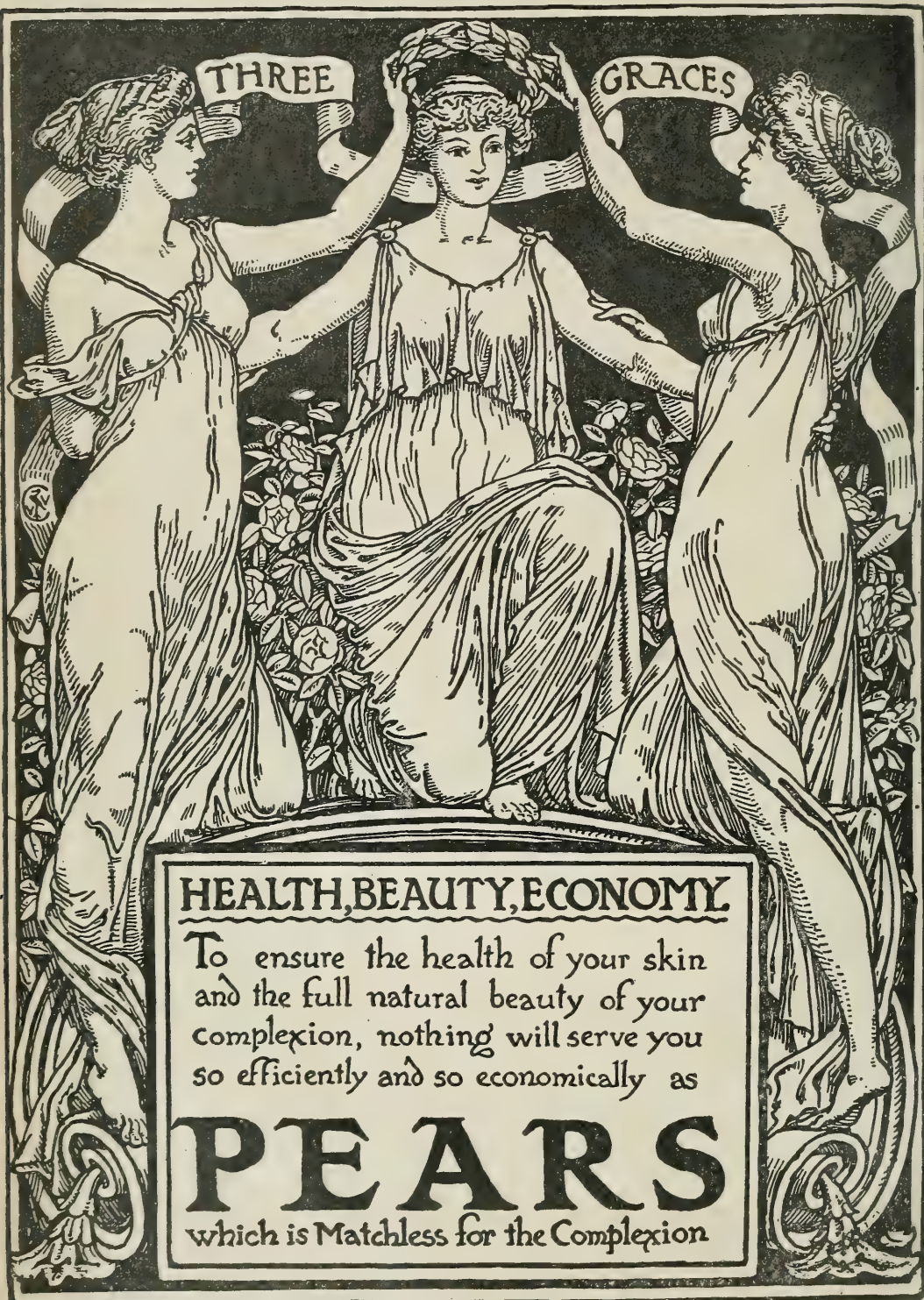
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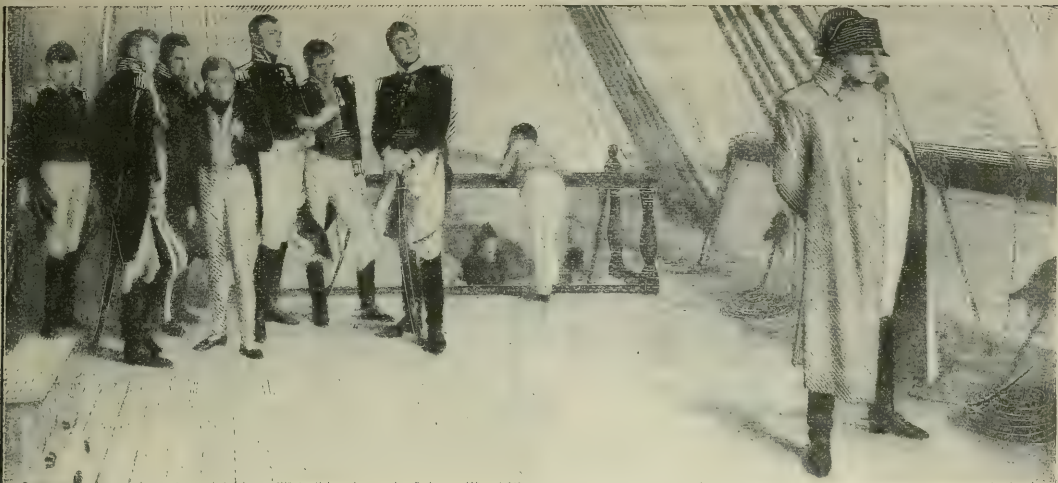
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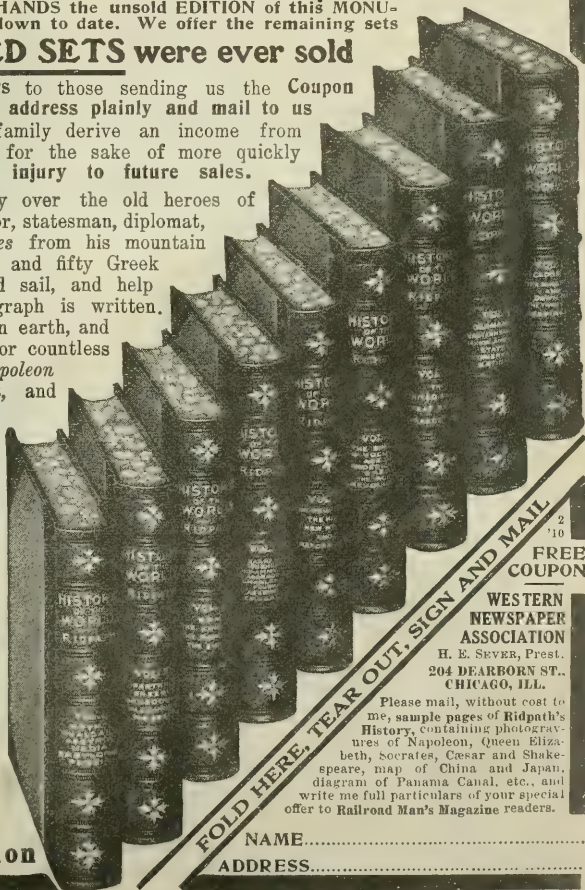
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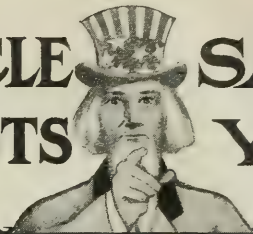
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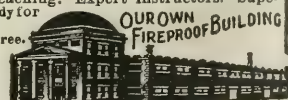
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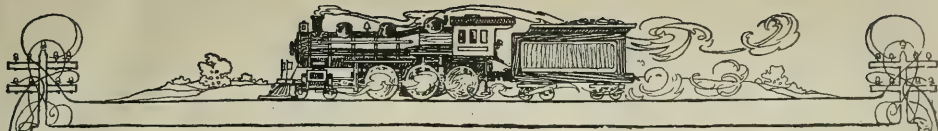
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THE RAILROAD MAN'S MAGAZINE

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THE RAILROAD MAN'S MAGAZINE

Vol. XI.

FEBRUARY, 1910.

No. 1.

The Headlight of Genius.

BY C. F. CARTER.

RAILROAD history is not a dry affair of dates and names and dust-covered happenings long since dead. It is living, personal, real, and most of it is recent. Of course, the great events of railroad history are fairly clear in the minds of most of us. If they aren't, we can easily find out what we want to know. For example:

When was the first railroad charter granted?

When was the first transcontinental road completed?

Who invented the air-brake, and when?

The answers to these questions are at the command of nearly every one.

But what of the lesser things, that are still as full of human interest?

When was the first bell-cord used, and what is the story that hangs from it?

Who was the first conductor to let a minister travel half fare, and why?

The answers to these and other similar questions are amusing.

Birth of the Bell-Cord—The First Train Run by Telegraph—Origin of the Ministerial Half-Fare Ticket—Coming of the Ticket-Punch, and Other Wonders.



RAILROAD builders of the early days were too impatient to reap the benefits of a good idea to wait for that idea to take coherent form before they put it into operation. Consequently, many trifling details of construction and operation had to be evolved from the inner consciousness of the men who were confronted with the need of them.

Take the bell-cord, for instance, the forerunner of the air-signal now in uni-

versal use for communication between train and engine. That humble cord plays an important part in train operation. It is absolutely necessary that the conductor should have some means of signaling the engineer always within reach.

In early days, before there were automatic air-brakes, the bell-cord was very much more important even than it is now. In Europe, where passengers are shut in little compartments where they are unable to communicate directly with

trainmen, or even with other passengers, the presence of the bell-cord has put an end to the robberies, assaults, and murders to which passengers were formerly liable.

The bell-cord was introduced by Conductor Henry Ayers on the Erie Railroad, which, being the world's first trunk line, for that reason had to solve an undue proportion of the practical problems of railroad building and operation.

In the spring of 1842, a few months after the opening of the line to Goshen, forty-six miles from the Hudson River, there were no cabs on the engines, no cabooses for the trainmen, no way of getting over the cars, and no means of communication between the train and the engine.

"Poppy" Invents the Bell-Cord.

There were no such things as train-orders, for the telegraph had not come into use, nor even printed time-cards. The engineer ran the train to suit himself, the conductor being merely a collector of fares.

Conductor Ayers, under the sobriquet of "Poppy," later became one of the most widely known and popular conductors in the history of railroading. He was witty and good-natured, and possessed in a remarkable degree the faculty of getting on pleasantly with every one with whom he came in contact.

Also, he possessed a waist-line that could be inveigled through the narrow car-doors only by the exercise of a good deal of finesse. Poppy was permitted to ride behind Engineer Jacob Hamel, a German, and the first engineer employed on the road. Hamel had always looked upon the genial Poppy with dark suspicion.

When the latter suggested that there should be some way for him to communicate with the engine so he could let Hamel know when to stop to let off a passenger, or for any other reason, suspicion became at once a certainty that the conductor was seeking to usurp the prerogatives of the engineer. Hamel decided to teach the presumptuous one his place.

One day Poppy had an idea. Procuring a stout cord, he ran it from the

rear of the train to the framework of the cabless engine. He tied a stick of wood on the end of the cord, and told Hamel that when he jerked the stick up and down, that he—Hamel—was to stop.

Hamel growled out something inarticulate, and as soon as Poppy's back was turned he cut the stick of wood from the cord and tied the latter to the frame of the engine. Next day the same performance was repeated.

On the third day, Poppy rigged up the stick of wood at Piermont, the terminus of the road, and told Hamel that if he cut the cord again, or ignored his efforts to signal him, he would thrash him when he got to Goshen.

When the train reached Goshen the signal-stick was gone and the end of the cord was trailing in the dirt. Poppy walked forward to the engine and, without uttering a word, took off coat, vest, and hat, loosened his ample collar, rolled up his sleeves, took a reef in his belt, yanked Hamel off the engine, and sailed into him.

It was as pretty a set-to as the most ardent sport could wish to see. Hamel had all the dogged tenacity of his phlegmatic race, while Poppy, in spite of his bulk, was agile as a cat. Neither knew anything about boxing; neither had any idea of yielding.

One represented Prerogative; the other championed Progress. For several minutes they puffed and mauled each other, and tore up the earth to the delight of several bystanders, until Progress triumphed, as she always does.

That memorable victory on that balmy May morning settled for all time the question of who should run trains. Also, it introduced an exceedingly important device. Once the idea was hit upon, it didn't take long to replace the stick of wood with a gong, and then the bell-cord was fully launched upon its useful career.

Sending Umbrellas by Wire.

Poppy Ayers took a good deal of pride in his invention, and made use of it on every possible occasion. One day, in 1849, when everybody was talking about the telegraph, one of his passengers, bound West from New York, was an old

countrywoman who had been to the city on a visit for the first time in her life.

Soon after leaving Piermont, Poppy found the old lady in a paroxysm of tears and sobs. With difficulty he calmed her sufficiently to learn that, in the excitement of her first journey, she had left her umbrella on the boat at Piermont. It was an umbrella that had been in the family for years, and could never be replaced.

"Never mind, mother," said Poppy. "I'll get your umbrella for you by telegraph."

With this comforting assurance, Poppy struck an attitude, reached for the bell-cord, wriggled it a few times, cocked his head as if listening intently, wriggled the cord again, and said:

"All right, mother; your umbrella will be here in a few minutes."

Then he went forward to the baggage-car, and came back bearing the missing umbrella aloft triumphantly, to the unspeakable amazement of the old lady.

"Got it by wire, madam," said Poppy.

It was a rule that the porters were to pick up all articles left in the cabins of the boats by travelers and take them to the baggage-cars, where they could be claimed at any stage of their journey by the absent-minded ones. Poppy knew just where to look for the umbrella when he telegraphed for it with the bell-cord.

First Clerical Tickets.

To Poppy Ayers is also due the credit of originating the custom of allowing

ministers of the gospel to travel for half fare. Early in the spring of 1843, Rev. Dr. Robert McCartee, pastor of the Presbyterian church at Goshen, who made one or two trips to New York every week, was a passenger on Poppy's train bound for the city. There had been an exceptionally heavy rain the night before, and as the frost was just coming out of the ground, the track was covered with mud in the cuts so deep that the train was delayed for hours.

The passengers, as passengers always have done since the days of the ark, uttered maledictions on the management for the delay. As the hours wore on, while the train stood still some of the more spirited ones drew up a set of resolutions censuring the railroad company in strong language for its incompetence in permitting the delay.

The resolutions were passed around for signatures.

When Dr. McCartee was reached, he said he would be most happy to sign the resolution if the phraseology

were slightly changed. Being asked to suggest the changes he had in mind, he wrote the following:

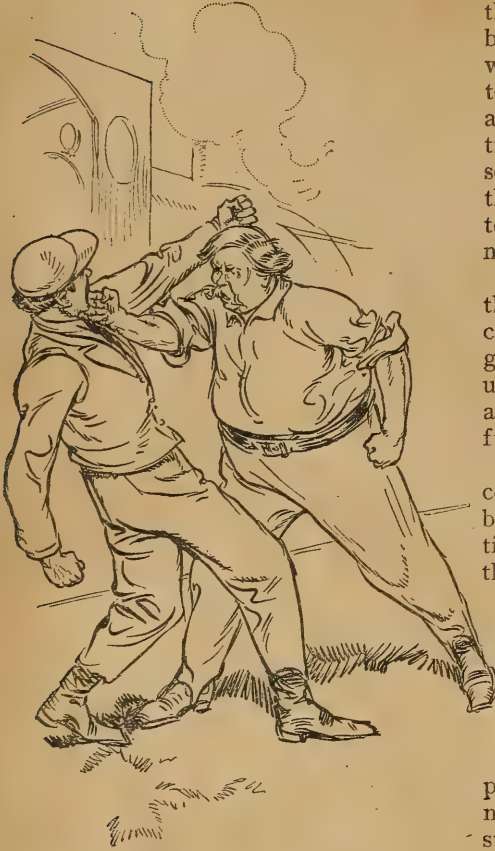
"Whereas, the rain has fallen at a time ill-suited to our pleasure and convenience, and without consulting us; and,

"Whereas, Jack Frost, who has been imprisoned in the ground some months, has become tired of his bondage, and has determined to break loose, and his head may already be seen coming out; therefore, be it

"Resolved, Thus and so."



"THE INVENTOR OF THE BELL-CORD."



NEITHER KNEW ANYTHING ABOUT BOXING.

When the good Dr. McCartee arose and read these resolutions in his most sonorous voice, there was a hearty laugh, and nothing more was heard about censuring the management of the road. Poppy Ayers was so delighted over the incident that he would never accept fare from Dr. McCartee thereafter.

Birth of the Ticket-Punch.

Not being selfish, Dr. McCartee suggested, after enjoying his free transportation for a few weeks, that all ministers be allowed to travel upon the same terms as himself. The company agreed, and for a few weeks no minister paid any fares to ride on the Erie. Then an order was issued that ministers were to be charged half fare, and that order established a precedent which was and is still universally observed.

The ticket-punch, too, was evolved on

the oldest trunk line. When the Erie began to carry passengers, in 1841, there were no station-agents. Each conductor, when he started on his run, was given a tin box which contained a supply of tickets and ten dollars in change. Passengers bound for New York gave up their tickets on the boats, for the Erie terminal was at Piermont, twenty-four miles up the Hudson.

After station-agents were appointed, the tickets for some years were of heavy cardboard bearing the signature of the general ticket-agent. These were taken up and returned to be sold over and over again until they were too much soiled for further use.

The public discovered a way to beat the company on these tickets. A passenger bound for New York would buy a through ticket to the city, which he would show to the conductor, according to custom. At the last station before reaching New York, he would get off and buy a ticket for the remainder of the trip. Then he would put his through ticket in his pocket and surrender the short-distance ticket.

On the return journey he would repeat the process, buying a ticket to destination, and then getting off at the last stop before reaching his home station and buying a ticket to be surrendered. Then he would be in possession of tickets for a round trip to New York, which he could use as often as he chose by merely paying fare for a few miles at the end of each trip.

It was a long time before the railroad company discovered the fraud. Then a system of marking the tickets by lead-pencil was adopted; but pencil-marks are easily erased, and the plan didn't work. The only mark which could not be tampered with was one which mutilated the ticket, and the necessity for some instrument that would do this neatly led to the adoption of the ticket-punch.

Train-Dispatcher Appears.

The movement of trains by telegraph was developed first on the Erie Railroad in 1851. At the beginning of that year the New York and Erie Telegraph Company's lines were completed along the railroad.

D. H. Conklin, a printer who had learned to operate after a fashion, was sent to Goshen by Charles Minot, the superintendent of the road, to adjust a battery which would not work. Conklin racked his brain over the matter for two days, but at last he got the battery straightened out.

Minot was so delighted to find a man who could do anything at all with the telegraph that he insisted upon Conklin taking the position of operator at Piermont. He was the first telegraph-operator regularly employed on salary by a railroad company.

At first he didn't know what salary he was to get. In fact, the company was so slow in adjusting the matter that he was obliged to borrow money to pay his living expenses; but at last Superintendent Minot decided that thirty dollars a month would be about right, and Conklin agreed with him.

After the telegraph line was ready for business, they didn't know what to do with it beyond sending an occasional unimportant message beginning "Dear sir," and ending with "Yours, respectfully." It was left to Conklin to make the first practical application of the telegraph in expediting railroad business.

Without the telegraph it was, of course, not possible to know what an incoming train was bringing in the way of live stock or other freight. It was, therefore, the custom to put off loading the barges and boats by which freight was transferred from the end of the line to New York until after the last train of the day had arrived, so that live stock and perishable freight might be moved with the least possible delay. Under this arrangement, the boats did not get to the city until late in the morning.

One day it occurred to Conklin to ask the operator at Goshen to find out how

many cattle there were on the east-bound train, and to telegraph the information to him. Having found out that the train was on time, and that it was bringing a certain number of cattle, he told the captain of the boat to go ahead and load, leaving room for fifty-four head of cattle.

There was a grand powwow, in which the captain, the agent, and about everybody else around the pier took part, to discuss this strange innovation. Although wholly incredulous, the majority decided to go ahead and try it. To the amazement of every one, the train did arrive on time, and it did have the precise number of cattle Conklin had predicted.

The boat was ready to leave as soon as the cattle were driven aboard. The result was that when Superintendent Minot reached his office in the morning and inquired about the boat, he was greatly astonished to learn that it had arrived and unloaded hours ahead of the usual time. When he learned how



"GOT IT BY WIRE, MADAM,"
SAID POPPY.

the feat had been made possible, he was delighted.

Yet even with this strong hint, it took Superintendent Minot nine months to hit upon the idea of using the telegraph to control the movements of trains. At that time trains were run simply by the time-card. Trains going east had the right of way over west-bound trains of the same class.

A Flagman on Foot.

If an east-bound train did not reach its meeting-point on time, the west-bound train, according to the rules, had to wait one hour and then proceed under a flag until the opposing train was met. That is, a flagman would be sent ahead on foot, and twenty minutes later the train would follow, moving about as fast as a man could walk.

Under this interesting arrangement, when a train which had the right of way was several hours late, as often happened, the opposing train would have to flag for thirty or forty miles.

On September 22, 1851, Superintendent Minot was on Conductor W. H. Stewart's train, west bound. They were to meet the east-bound express at Turner's. As the east-bound train did not show up on time, Minot told the operator to ask Goshen, fourteen miles west, if it had arrived there. On receiving a negative answer, he wrote the world's first telegraphic train-orders, as follows:

TO OPERATOR AT GOSHEN:

Hold east-bound train till further orders.

CHARLES MINOT, Superintendent.

Then he wrote another order, which he handed to Conductor Stewart, reading as follows:

CONDUCTOR STEWART, TURNER'S:

Run to Goshen regardless of opposing train.

CHARLES MINOT, Superintendent.

Conductor Stewart went forward to Engineer Lewis and showed him the order. Lewis read it carefully twice, and handed it back to Stewart.

"Do you take me for a darned fool?" snorted Lewis. "I'll not run on that thing."

This being duly reported to Minot, he

went forward and tried to convince Lewis that the order was all right. Lewis refused to pull out. He wasn't looking for a chance to cross the Jordan that morning, so he proposed to abide by the rules in such cases made and provided.

Finding Lewis obdurate, Minot climbed on the engine and took charge of it. Lewis jumped off and established himself in the rear seat of the rear car, leaving the door open so he could jump when the crash came.

But nothing happened; Minot trundled along at a good clip until he reached Goshen. Finding on inquiry that the opposing train had not reached Middletown, he gave orders to hold it at that point until his arrival, and proceeded. He kept on moving under telegraph orders until Port Jervis was reached, where the east-bound was met.

The account of the superintendent's conduct caused a great commotion on the road. The engineers in solemn conclave agreed that they would not run trains on any such crazy scheme.

But the revelation of the possibilities of the telegraph in facilitating train movements had settled the matter beyond the possibility of change by all the decrees of all the engineers in the world. Superintendent Minot issued an order that telegraphic orders must be obeyed.

Testing Douglas.

But an important improvement remained to be made. Charles W. Douglas, a printer, who had picked up a smattering of telegraphy by stealth at night in a telegraph-office in the same building with the printing-office in which he worked, was given a position as telegraph operator at Addison, New York.

One day he wrote out a train-order without consulting the tape. In those days all messages were printed in dots and dashes on a paper tape. The conductor was horrified, and refused to accept the order until Douglas had spelled it out from the tape.

He considered Douglas's conduct so dangerous that he reported the matter to Superintendent of Telegraphs L. G. Tillotson, at Elmira. Tillotson was as horrified as the conductor had been. He summoned Douglas to Elmira forthwith,

and proceeded to give him a scathing lecture upon his dangerous departure from established usage.

"But," said Douglas, "if you can read your own station-call by sound, why can't you read a whole message the same way?"

"Because you can't."

"But you can, and I'll prove it."

Thereupon Douglas proceeded to write down a message by sound which Tillotson verified from the tape. But he was not convinced. All the rest of the afternoon Douglas was put through test after test.

He went through them all without a mistake. Even then Tillotson was not convinced. He sent Douglas back to his post at Addison, and tested him again. That test settled the matter, and numbered the days of the telegraph-tape.

The first shipment of milk by rail ever made in the world was made in the spring of 1842, over the Erie Railroad to New York City. As usual with all new departures, every one knew that it couldn't be done. But Thomas Selleck, one of the two original station-agents on the Erie Railroad, thought it could be done successfully.

Selleck was appointed agent at Chester in September, 1841. He was quick to notice the excellent quality of Orange County milk, for he had lived in New York City, where in those days the only milk available was from cows kept in stables in the city and fed on slops from breweries and distilleries.

He suggested to the farmers that they would do well to try shipping milk to

the city by railroad, but they jeered at the idea of sending it such an unheard-of distance as fifty miles, subjected to the jarring and jolting of the trains. Why, it would sour and be churned into but-



TWENTY MINUTES LATER, THE TRAIN WOULD FOLLOW.

termilk before it had gone half-way. The idea was preposterous!

In those days dairying in Orange and other interior counties consisted in making butter throughout the year and packing it down to be taken by wagon to Newburg, where the wagons were loaded on barges and taken down the river to the city; there every farmer would drive to Washington Market and sell his butter himself.

The second Tuesday in November was the date of the great butter market. The

farmers called it "the day of the big trip." The butter brought from twelve and one-half to fifteen cents a pound.

Selleck finally decided to try shipping milk himself. He rented a store at 193 Reade Street, New York City, and announced that he would have fresh Orange County milk for sale there on a certain May morning in 1842. He finally induced four farmers to deliver a total of two hundred and forty quarts of milk in old-fashioned blue churns, which he shipped to his city store. He paid them two cents a quart for the milk, and paid freight at the rate of twenty cents a hundred pounds.

Icing the Milk.

The milk reached the store in good condition, and sold at four cents a quart, instead of the established rate of six cents for swill-milk. But there was not enough to supply the demand. Selleck increased his shipments as fast as he could, but he could not supply one-half the demand.

Every morning there would be a line of men, women, and children a block long, waiting at the milk depot for the arrival of the boat. The farmers were glad enough to sell their milk for two cents a quart, for there was more money in it at that price than in making butter to sell at fifteen cents a pound.

When hot weather came, trouble arrived with it. The milk soured before it reached New York. The farmers had been in the habit of delivering the milk just as it came from the cows without taking the trouble to cool it. Finally, Jacob Vail, of Goshen, procured a coil of lead pipe, which he placed in a hog-head filled with ice.

He poured his shipment of milk through the pipe. It came out cold, and arrived in the city in good condition.

Then another inventive genius discovered that all this costly apparatus was not necessary; that the same result could be obtained by merely setting the pails of milk in a spring, or even a tub of cold water, until the animal heat was driven off.

Then the troubles of the milk business were transferred from the farmers to the railroad management, which had to

find a suitable car for transporting milk, and then to meet the necessity for special trains to collect it.

The second year of the milk trade by rail produced a revenue of sixteen thousand dollars for the railroad. The third year, 6,138,840 quarts were shipped by the Erie, saving the consumers one hundred and twenty thousand dollars by reducing the old price of six cents for swill-milk to four cents for real milk, while at the same time the farmers received forty-five thousand dollars more than they would if they had converted their milk into butter at fifteen cents a pound.

Milk is now brought to the New York market from Hornellsville, three hundred and fifty miles away; somewhat farther than the fifty miles which the farmers of Orange County once thought an impossible distance. Milk has built five branch roads in Orange County at a cost of four million dollars, and has returned to the county fifty million dollars. New York now consumes 1,878,480 quarts of milk every day, and every quart of it comes by rail.

Earliest Iron Bridge.

The first iron railroad bridges, three in number, were built on the Erie Railroad in 1849; but they were all replaced by wooden bridges, because one of them, over Westcolang Creek, near Mast Hope, gave way under a train on July 31, 1849. When a freight and live stock train of seventeen cars east bound on that date struck Westcolang Creek bridge, Nat Hatch, the engineer, heard a loud, cracking sound.

He instantly pulled the throttle open, with the result that the engine got over safely; but the tender and fifteen cars went down, carrying with them Brake-man Adam Tice; George Randall, a drover, and J. L. Clapp, his helper. One hundred cattle and a number of sheep and hogs were in the cars. Randall and Tice were alive, but were penned in so that they could not get out.

While efforts to extricate them were being made, both were kicked and crushed to death by a steer which lay upon them. Clapp died soon after being taken out.

After this accident the company lost faith in iron bridges. All bridges on the road, including the famous structure over the chasm of the Genesee River at Portage, were of wood. This chasm was two

This was two months before the famous trip by Stephenson's Rocket, which is generally credited with first honors. The engineer who made this historic trip was Horatio Allen, who was born at Schenectady, New York, on May 10, 1802.

On January 28, 1828, Mr. Allen was sent to England to buy three locomotives. One arrived in New York early in 1829.

It was sent to Honesdale, where it was set up by Mr. Allen, who also made the



EVERY MORNING THERE WOULD BE A LINE OF MEN, WOMEN, AND CHILDREN.

hundred and fifty feet deep and nine hundred feet wide. A congress of engineers was assembled to devise a span.

A wooden bridge of fifty-feet spans was decided upon. It required two years of time and an outlay of \$175,000. When it was opened, on the 9th of August, 1852, 1,600,000 feet of lumber, the product of three hundred acres of pine forest, had gone into its structure.

But the science of iron bridge building was making progress; and when the great wooden bridge burned in 1875, it was replaced in forty-seven days with a modern iron one.

It is a fact pretty generally overlooked that the first successful fast trip ever made by a locomotive was made by an American engineer on an American road.

first trip on it. Allen was chief engineer of the South Carolina Railroad, the first railroad ever built which was designed from the outset to be operated by locomotives. He was afterward president and chief engineer of the Erie Railroad, engineer of High Bridge, New York, and the inventor of paper car-wheels.

The story of this first locomotive trip ever made was related by Mr. Allen in an address at a dinner at Dunkirk, May 15, 1851, celebrating the opening of the Erie:

"When was it? Where was it? And who awakened its energies and directed its movements? On August 9, 1829, on the banks of the Lackawaxen, at the commencement of the railroad connecting the canal of the Delaware and Hudson Canal Company with the coal-mines,

and he who addresses you was the only person on the locomotive.

"The circumstances which led to my being alone on the engine were these: The road had been built in summer; the structure was of hemlock; the rails were timbers notched on caps placed far apart. The timber had cracked and warped from exposure to the sun. After about three hundred feet of straight line, the road crossed Lackawaxen Creek on a high trestle about thirty feet above the water on a curve of three hundred and fifty to four hundred feet radius.

"The impression was very general that this iron monster would break down the road, or that it would leave the track at the curve and plunge into the creek. My reply to these apprehensions was that it was too late to consider the probability of such an occurrence; that there was no other course but to have a trial of the strange animal which had been brought there at great expense, but it was not necessary that more than one should be involved in the same fate; that I would like to take the first ride alone, and the time would come when I should look back to the incident with great interest.

"As I placed my hand on the throttle, I was undecided whether to go slow or with a fair degree of speed; but, holding that the road would prove safe, and preferring that, if we did go down, to go

handsomely and without any evidences of timidity, I started with considerable velocity, passed the curve over the creek safely, and was soon out of hearing of the cheers of the vast assemblage present. At the end of two or three miles I reversed and returned without accident to the place of starting, having made the first locomotive trip on the Western Hemisphere."

The first attempt at train-wrecking ever made took place in the last week of November, 1852. A track-walker on a section near Andover, New York, on the Erie Railroad, found an obstruction on the track that had evidently been placed there with the intention of wrecking the east-bound express. A watch was set.

At 9 P.M. Friday, November 26, 1852, a few minutes before the east-bound express was due, two men appeared on the track carrying a log chain. They went to a wrecked gravel-car, and, taking from it a pair of wheels, chained them to a culvert where they could not be seen until the train was close upon them.

The two were seized and taken to jail at Angelica, where they were found to be George Palmer, a cabinet-maker, aged twenty-five, and Sam Allen, a blacksmith, aged twenty-one. They were tried and convicted of attempting to wreck a train, and on February 3, 1853, were sentenced to serve four years each in prison.

THE ENGINE'S HYMN.

BY H. J. SMITH.

Written for "The Railroad Man's Magazine."

I LOVE to hear the whistle blow,
 It sort of lets a person know
 That all is well; that the engineer
 Is watching to see that the way is clear.
 There's something comforting in its
 sound,
 While on some journey you are
 bound;
 If you know its language you can
 tell
 If there's something wrong or all is
 well.
 "All aboard!" Toot, toot! the defi-
 ant sound,

Is echoed and echoed for miles
 around.

And ever as we speed along,
 You catch the spirit of the song.
 Sometimes at night, when all is still,
 I can not close my eye until
 I've heard the call of the night express,
 Thundering on to the Golden West.
 I can hear it whistle long before
 It passes by the station door,
 And I listen until the sound grows
 dim—
 And go to sleep to the engine's hymn.

COMEBACK'S PRIZE POLTROON.

BY CALVIN JOHNSTON.

Even the Ghost of His Grandfather Couldn't
Swerve Tim Grogan from His Calculations.

TIM GROGAN," remarked the Old Switchman, filling his pipe with the yardmaster's tobacco and absently putting the pouch into his pocket. The yardmaster snapped his fingers and his companion eagerly returned the pouch.

"To think I w'u'd forget such a thrifle!" said the Old Switchman sadly, "and when I'd rather be smokin' soft coal than this stuff any day."

The midnight freight clattered past over the crossings, and two other mem-

bers of the yard crew entered the switchshanty and put down their lanterns.

"What about Tim Grogan?" demanded the yardmaster sternly.

"He was the lad for the higher arithmetic," answered the Old Switchman musingly; "high enough to go in for astronomy. Subtractin' was play to him, and we used to call him superintendant av division—though his only job was herdin' cars with a lead-pencil in the yards at Comeback."

Removing the pipe, he gazed into the bowl and lapsed into silence.



"GROGAN W'U'D SIT ON THE STATION PLATFORM AND ADD UP THE CAR NUMBERS FOR THE IDDICTION THERE WAS IN IT."

"Throw in a little more coal," suggested one of the switchmen from his perch on the tool-box, and with an exclamation of disgust the yardmaster hurled his pouch at the Old Switchman, who all but emptied it into his pipe and pocket.

"Though 'tis little use I can make av it," he complained, "I am gettin' ould and wind-broken from overwurruk, and can hardly get a draft through the pipe—p'rhaps the flue is choked up a little bit. Wance I c'u'd draw like a suction-pump—"

The switchman on the tool-box reached for a wad of oily waste with a look there was no mistaking, and the ancient narrator suddenly took up his story as if the thread had remained unbroken from the very first word:

"Whin there was nothin' else to do, which was from noon till 7 A.M., Tim Grogan w'u'd sit on the station platform at Comeback, and add up the car numbers for the iddication there was in it. Afterward he w'u'd calculate the date av your birth, which made him disliked by the women, or the date av the superintindint's death, which made him popular with the men, for he proved it was no distant day. Iviryrthing he did was the raysult av careful calculatin'.

"He knew the exact time it w'u'd take the flier to come from the bridge to the station, and w'u'd sthroll across the track in front av it so close that the suction w'u'd pull out hairs from his head and scatter thim like sparks, for Tim's head was the color av a prairie-fire, the friction av figures kapin' his skull at a red heat.

"Kitty Flannery, who was the chief despatcher at Comeback, with no subordinates, despised him for calculatin', though Tim had kept her company for three years, eight hours, and wan minute. The eight hours bein' the length av his call the night before while Tim was calculatin' sh'u'd he ask her to marry him, and the wan minute bein' the time it tuk Kitty to answer in the negative.

"Nixt day Tim sat in the lunch-room estimatin' the number av chews it tuk to reduce a sinker to food, whin Kitty came in. The two av thim nodded with caution, and afther a bit Tim asked:

"Have ye calculated well on what I asked ye last night?"

"I have," answered Kitty with great ent'usiasm; 'I have given eight hundred and fifteen cheers meself, actual count, for raypylin' as I did.'

"Ye c'u'd give thim in two hours and five minutes,' said Tim; 'have ye filled in the balance av the time by regrettin' me?'

"Regret ye?' she replied with a laugh and toss av her brown curls; 'ye cold-blooded polthroon, who w'u'd calculate on askin' a lady to marry ye as ye w'u'd on buyin' a horse! Niver will I regret ye.'

"Raymimber, woman,' said Tim, raisin' his pencil, 'I have calculated the day ye were born; ye are too old ivir to have that question raised again.'

"Kitty, for all her blue eyes and pink cheeks, gave him a look as black as a witch. 'Ye are a polthroon,' she said wance more.

"Tim felt this was a hard wurrud, which it was above the power av the highest arithmetic to ixplain. He thought it over in a dark humor, feelin' that she had raised a wall betwane thim.

"Yez answer last night was correct,' he tould her thin, as if it had been a sum in figgers; 'will ye let me join in the cheerin'?' With this he raytrated cautiously through the door, comin' back for his hat whin he heard the station-call in the telygraph office.

"Afther a while he went into the station-room and stood around; prisintly the engineer av the switch-ngine came in, too; and Kitty, who had pretended not to notice who was there, stopped behind the counter av the telygraph office.

"She smiled at the engineer, who came up to the windy and stood sideways, with wan eye glarin' at Tim and the other winkin' at Kitty, till the fireman rang the bell for him. Tim took his place before the counter, but she paid no attintion till he had called her twice.

"I am not to blame,' he said; 'Kitty, I calculate by impoolse; 'tis impoolsiveness at the bothom av it. Ye must take me as ye find me.'

"Impoolse,' raypated Kitty—with an icy laugh; 'why, the wreckin'-crane, which takes six hours to make up its mind whither to hold an ould box car in

the air or to drop it and break it over ag'in, is hysterical beside ye.'

"'Ye led me on,' dayclarèd Tim.

"'It has taken three years to shake ye,' said she.

"'Ye called me a hard name, woman.'

"'Sure; look it up in the arithmetic; the dictionary is black magic to ye.'

"Tim was defeated with great loss av

gan lookin' as blue as the caves below Killarney, where Tim's grandfather used to raytine to curse his landlord in privacy.

"'Twas a bould man, that ancistor,' said Tim, callin' him to mind; 'I calculate he w'u'd have cursed a switch-ingineer—if he had owed him rent. But he used up all the courage that had come



"TIM WAS CALCULATIN
SH'U'D HE ASK HER
TO MARRY HIM."

spirits and wint away, thinkin'. 'She has taken up with that greasy spalpeen who is proud av his dirty switch-ingine. And me with a disthant relative at headquarters!—If he was not so disthant, I w'u'd instrooct him to fire thim wan after another.'

"'Beware, woman; it is the pride av ye that goes before a fall,' he said. But this was out av ear-shot, for he didn't want her to be warned av his relative.

"All that afternoon he attracted unfavorable attintion from the telygraph office, till at last the whole wurruld be-

down in the family from the King av Balhooly; not a spark did he leave for us, bad 'cess to him, or I w'u'd take that greasy divvil apart a limb at a time.'

"When he got through upbraidin' his ancistor for bein' a spendthrift av the family courage, it was time fur the through flier; and, after a calculation which w'u'd have humbled ashthronomy to the dust, he strolled across the track with Kitty watchin' him from the windy.

"This time the draft av the train not only plucked his hair like the fingers av a banshee, but almost dragged out his

head by the roots, and left him spinnin' like a top in the cinter av the track behind the train. When he c'u'd walk ag'in without feelin' that he was on a turn-table, Tim looked in at the telygraph office, where Kitty lay across the table in a faint.

"Ye are losin' color from worryin' over that answer," said Tim.

"Ye are a fool," whispered Kitty, white as a ghost.

"It is the raysult av calculation," rayplied he.

"Not so; it is the raysult av nature," said Kitty, and, as her face from bein' very white began to grow very black, Tim went away quickly to curse the ancistor who had left his descendants to shiver with fear.

"That evenin' the ingineer walked home with Kitty; and later, when Tim passed the house, he saw him makin' a call, for Kitty had placed him so the lamp w'u'd throw his shadow on the windy-curtain.

"That is a big, strong shadow," said Tim, 'but I w'u'd stand up against it, if the owner w'u'd raymain quiet.'

"Thin he went to Flannagan's, the flagman, who had a library av his own.

"What is polthroon?" asked Tim.

"I will tell ye," says Flannagan; 'I have "polthroon" at me tongue's end. Bridget, where is the dictionary?'

"Sure, I traded it for two magazines av fashion," answered Mrs. Flannagan, who had wore a polky-dot calico, and an osthritch-feather with an elbow in it, for three years.

"Ye are a peacock, who w'u'd feed on book-worms," said Flannagan, woild at the thought. 'Where is the other book av the library?'

"I used it for currul-papers; we have wurds enough in the house already.'

"I will go to the beer-garden," said Flannagan in a threatenin' voice.

"It is an invitation," said she, puttin' on her hat; and so Tim and Flannagan stayed at home and played pinochle till they quarreled, and the two av thim thrust Tim outdoors.

"He went past Kitty's house again. The ingineer was still callin', and Tim calculated the width av his shoulders on the curtain before undoublin' his fists and walkin' on softly.

"But next mornin' Tim went to take the car numbers, wonderin' why the sun didn't rise. As he came back toward the depot through the yards, it got so dark that the caves below Killarney w'u'd have blinded him with light.

"The switch-ingineer was passin' in and out all day, while Tim sat on the platform calculatin' the number av times the wurrd 'polthroon' w'u'd occur in his own funeral service, which he set for Friday.

"I cannot outlive Friday, whenever it comes," he tould himself, and he felt that life was passin' him as a pay-car goes by a tramp.

"Now, it used to be a common rayport along the ould P. D. Q. that in choosin' the right av way from Comeback to the foot-hills, they'd employed a crow instead av a surveyor. You c'u'd stand in any spot av that wan hundred miles and, lookin' either way, see the two lines av rails come together like the points av a silver spear sharpened at both inds. Not a crook, or even a waver in all this distance, though there was a stiff grade from Comeback to the foot-hills.

"Tim knew this as well as any wan, but on this day he had no mind to give it calculation till toward evenin'. While waitin' for the flier he saw Kitty rush out onto the platform with a piece av paper flutterin' in her tiny fist.

"There was tears av fright in her big blue eyes as she raised her hand to beckon him. Thin, raymemberin' the slight Tim had put upon her by takin' 'No' for an answer, and by not drivin' the ingineer out av her favor, she stopped short and waved her hand down the yard instid.

"The next minute the ingine was beside her, with the ingineer leanin' out av the cab-windy.

"Make haste for the life av ye!" she cried, wavin' the paper as if flaggin' him with the death notice. "'Tis a freight-train busted in the foot-hills, and tin cars av coal are on the way back here like the bullet out av a gun!"

"The man hung there as if frozen; and thin, with a white smear comin' over his dirty face, reached for the lever. But Tim Grogan had heard and was on his fate.

"The flier!" he yelled.

"Is runnin' fifty minutes late!" said

Kitty, furgittin' her impoliteness in the excitement.

"Thin it is past the division-point,' goes on Tim; 'and none av the stations betwane here and there have night-oper-ators! The offices are empty by now! If those coal-cars should raytrate through Comeback as the flier comes up, 'twill be a foine wreck!'

"He drew out a pencil and piece av paper so cool that Kitty's eyes began to blaze.

"Ye have no heart av a man at all,' she cried. 'Think av the people killed—' She put her hands over her eyes, while the engineer growled at Tim and reached out with his fist.

"Be quiet,' said Tim, 'I'm calculatin'.'

"It's crazy he is with figgers in the

head,' said the fireman. 'Let's get into sidin'.'

"Stay where ye are!' commanded Tim. 'I'm calculatin'.'

"He picked up the piece av paper which Kitty had dropped and went on as if teachin' a class in arithmetic.

"The passenger will be here at 7.40. Accordin' to this wire, the coal-cars were sixty miles away at seven o'clock. They will come down the grade at ninety miles an hour—I have figgered it many a time. They will meet the flier here in the yards at Comeback! It is an illigent time-card,' he said, and went racin' on with his figgers, while the others stood by, not knowin' what to make av it.

"And there is no place to ditch the coal-cars excipt Backwood Sidin', he raysumed, 'where they will be at 7.30.

It is now 7.10; and he looked at his watch. 'There raymains twenty minutes to throw the switch at Backwood Sidin'.'

"The other three looked at each other wit' startin' eyes, while



J. NORMAN LIND.

BE QUIET," SAID TIM.
"I'M CALCULATIN'."

Tim kept his eye on the watch, whose tick-in' began to sound as loud as the clang av a fire-gong.

"'Nineteen and a half,' said Tim. 'Nineteen! Are ye still here?'

"The fireman got out av the cab. 'Fif-

"'Now, this is like ridin' out a cyclone on a spring-bed,' says Tim to himself, as, with the throttle wide open, his toy engine began playin' leap-frog out av the yards. It is a hurdle racer yez are, ye scrap-iron Nancy Hanks.'

"He threw coal into the fire-box, while bein' tossed about like dice in a box, and thin they strucked the straight track in a whirlpool av black smoke and cinders as big as a bonfire. Aven thin she lurched so that the rails purred in a blood-curdlin',



"YE HAVE SAVED THIM ALL!" SHE CRIED, "AND, BEST AV ALL, YE HAVE SAVED YOURSELF!"

teen miles in about that many minutes wit' this ould tea-kettle! And thin throw the switch at Backwood!' He burst out in a great tremblin' yell, and sat down on the cinders.

"'They may be comin' wan hundred and fifty miles an hour,' said the ingineer, with that white smear showin' more and more through the dirt.

"'Yez are no calculators,' said Tim in disgust. He just waved his hand. The ingineer stepped out and stood stoopid, wit'out wurrud or sign. 'I will show ye what is arithmetic,' Tim told thim all, and thin ran away with the ingine.

steely way. The purr rose to wan long infernal scrame, and the little ingine—pantin', clawin', spittin' like a wildcat—seemed tearin' the whole road-bed to scraps as she whizzed along.

"'Eleven minutes,' said Tim, calculatin'. 'But where are we? I can no more count the mile-posts than pickits on a fince; besides, the dark is on me.'

"And night it was by that time, as it comes on the pra'ries, wit'out a light in the earth or sky, and him with no head-light hurtlin' on into the solid blackness av it. The red rays burstin' through the fire-box door turned his hair and face the

color av blood; his hands seemed drippin' with it as he held up his watch.

"'Four minutes more,' he said, lookin' at the speed-recorder. 'I will have wan minute to throw the switch.'

"He leaned far out the windy to catch a landmark with his eye.

"'Wurroo!' he yelled suddenly with the excitement av the occasion. 'Why didn't the ould divvil curse the landlord to his face, insthead av in the caves av Killarney? If he were only here to curse the coal-cars!'

"The coal-cars! It was the first time he had thought av thim.

"'Still, it takes more courage to curse a landlord, even behint his back, for here I am p'oticted by calculation,' said Tim.

"'And is your calculation thrue to the minute?' asked the spirit av his grandfather, gettin' into the cab with him.

"Tim fell back out av the windy, and his hair stuck straight out av its own will.

"'It can't be wrong,' he gasped; 'I have me own time-card.' And thin he remembered too late that no train ixcipt the wrecker iver ran on time on the P. D. Q. He shut off the steam with his face a smear av white in the bloody light.

"'From now I will curse insthead av calculate,' says Tim. 'A man has no right to know more than his ancistors.'

"The runaways are comin', as wan me-teor to mate another, till the second whin they crash and shplinter the earth and sky like glass. There was a sharp crackle under the wheels as the ingine slowed down, and Tim clamped the brakes on her so sudden that she bucked as if startin' to turn a cropper off the right-av-way.

"Tim trimbled as he backed her up thirty yards. 'Curse away now, ye ould divvil,' he said. 'Ye have left me no courage, aven for calculation.'

"He jumped out and staggered toward the switch stand; he fell down and crawled; he fumbled with the lock. A roar burst out av the dark like the salute av a battery in his left ear; his head rocked before it; he dropped the key.

"'Polthroon, polthroon!' he kept thinkin', as he pushed himsilf away to be clear av the ruin, whin the wild cars would wade through the switch-ingine. 'I raymimber,' he yelled. He shook his fist into the face av the night. 'I heard it wance before. It means a coward!'

"He groped for the key with his tremblin' hands and picked it up. 'And it is thrue. I am sthruck with panic,' he stut-tered in a chill av horror. But it is a liar I will prove the woman, who has no business to calculate a man's character.'

"He pulled on the lever, kneelin' down. Somethin' passed by in front av him, startin' an avalanche av air, which pinned him to the ground like a wave av solid rock.

"Only for an insthant, howiver, and thin he stherted to fill up the vacuum made by the runaway cars, which were now ingaged in throwin' coal from a pile av wreckage at the ind av the sidin'.

"In thirty minutes Tim knew enough to hop on wan foot, which he did, back to the switch; and, closin' it, he climbed into the ingine. His grandfather's ghost got in alongside.

"'Unload!' commandid Timothy. 'We are not in it with a calculator.' That was the last he saw av him.

"The flier was in the yards whin he got back to Comeback, and hoondreds av people mobbed him in gratitude. But Kitty, breakin' through the crowd, hung about his neck.

"'Ye have saved thim all!' she cried, 'and, best av all, ye have saved yourself!'

"'It was—' said Tim, but the mem-ory began to gain on him, and the wurrud sthuck in his throat.

"'Calculation,' laughed Kitty, her eyes brimmin' with tears; 'but I'll take ye as I find ye.'

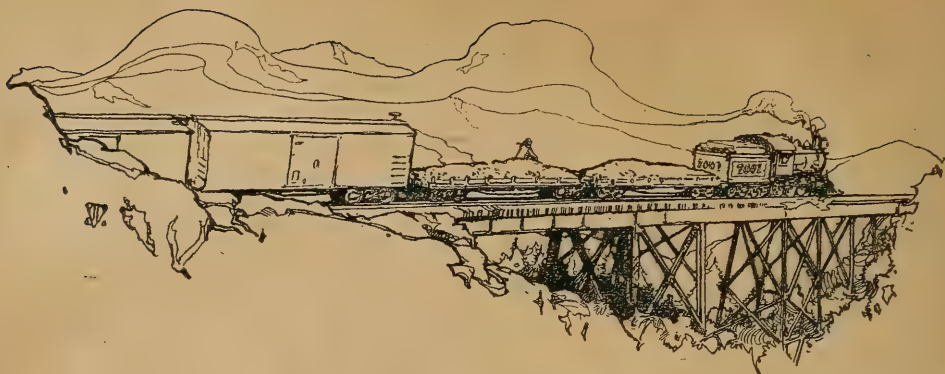
"'Woman! Niver spake that wurrud to me ag'in,' said Tim, steadyin' his voice. 'I felt death blow into my face. My brain froze stiff, and thin he lured me afther him a quarther av a mile down the sidin', turnin' handsprings. Do yez think I am a fool to calculate so far? But "Polthroon" is a different mather—'

"Kitty raised her head from his shoul-der, while Tim and the ingineer, who had come up, gave wan look at each other.

"'Maybe she was right,' said the ingineer. 'But I have a duty to the company, and will take no chances against him.'

"'Is that all?' asked the yardmaster.

"'It is enough,' replied the Old Switch-man, 'only I will add that the relative in his distance heard av Tim's calculation, and took him into the transportation day-partmint as the only author av a time-card whose train was ivir on time.'"



The Inside of the Freight Department.

BY T. S. DAYTON.

WHEN a boy gets a watch he always wants to examine the works. When he gets older he doesn't care, but he still carries with him the passion for looking at the inside of things to find out how they work. This curiosity is the secret of achievement. This article is for the young men who have that wide-awake curiosity. If you read it you will not find your curiosity satisfied, but only more excited. Then you will get in and do something. That is what we want.

How a Great Railroad Organizes Its Chief Revenue-Producing Traffic; a Glimpse of the Big and Little Men Who Do the Work, and How They Do It.



THE traffic-manager of a railway is usually one of the highest salaried men on the official list. His post is close—if not next—in real importance to that of the president, even if a few vice-presidents may outrank him. On many of the large systems, however, the traffic-manager is one of the vice-presidents.

Although he has charge of passenger traffic as well as freight, it is with freight affairs that he is most especially concerned, even though he has as his chief lieutenant a highly qualified general freight-agent. The freight earnings of

a railroad are about three times as much as the passenger earnings, and seventy-five per cent of the road's total receipts.

Twenty years ago the average salary of a good traffic-manager was ten thousand dollars a year, and of a general freight-agent a little over half that sum. Exact wage statistics of this sort are hard to get at, but it is safe to say that to-day there are several traffic-managers who are drawing more than twenty thousand dollars annually, and a fair number of general freight-agents who get ten thousand and over.

What must a man know in order to fill either of these high places with credit

to himself and with profit to his company? Let us first take up the traffic-manager's qualifications and duties, and then work down through the list of his subordinates, on whom he depends—those who head his various sub-departments—clear through to the station-agent out on the firing-line, for among these or their employees are the traffic-managers and general freight-agents of to-morrow.

The Busiest Man.

One of the traffic-manager's principal duties is rate-making—a task that, owing to the ever-changing adjustments of trade, is never finished. These rates cover principally the transportation of goods. Upon his skill in fixing them so as to leave a reasonable profit for the road and at the same time stimulate business depends to a great extent the prosperity of his company.

Every civilized human being has an influence on the ebb and flow of the freight business. The adjustments of trade to-day may be obsolete to-morrow. That is why the traffic-manager's task of rate-making is never finished.

Even the president himself does not keep as minute watch of the company's total receipts and expenditures as does the traffic-manager, who also scrutinizes continually the total volume of traffic—how it is made up, how it fluctuates and what its ever-changing and peculiar needs are.

He keeps in close touch with the head of the operating department in regard to the number and time of trains. He conducts the difficult negotiations with the traffic-managers of other roads relative to through rates, what percentage of the revenue each road shall receive, and all other questions in regard to the interchange of traffic. He must know the conditions of every business and of all markets, and must work continually to increase the traffic of his road.

Traffic-Manager's Right Arm.

To do all this, the traffic-manager must be a man of mature judgment, he must have clearness of perception, firmness, consistency of purpose, practical experience and a perfect familiarity with the resources of the company. If he is in-

competent no one can lose so much money for a railroad in so little time.

It is the traffic-manager's first lieutenant, the general freight-agent—his understudy, in fact—on whom his success depends to a considerable extent. In cases of necessity, this official temporarily assumes all the duties of the traffic-manager in making rates and directing the flow of traffic.

The general freight-agent's first duty, however, personally and through his subordinates, is to get business for the road and keep his competitors from taking it away. It has to be hunted out and solicited precisely as other goods are sold. The competing sellers of freight transportation, however, have a little more handicap than the sellers of merchandise, for their prices are all the same, and they have to depend on personality and service to get the business.

A Man of Leisure.

In brief, the principal routine duties of the general freight-agent, outside of getting business, are as follows. He issues regulations governing the transportation of freight and the disposition of perishable property and high-class freight. He has to keep an eye out to see that there is no laxity in the weighing and inspection of freight in transit over his line; that the cars are not overloaded so as to go limping to the repair-shop in unusual numbers.

He prescribes what classes of freight shall and shall not be loaded together, how it shall be placed in or upon cars, how it shall be handled while in transit and when it arrives at destination, and the disposition to be made of claims, for delay, overcharge, loss and damage. Finally he has to see that measures are rigidly enforced to insure getting the freight to its destination in the shortest possible time after the railroad receives it from the shipper.

Issuing regulations and seeing that they are enforced are parts of the general freight-agent's work that the public sees little of. To the many people who call on him in the course of a day, he seems to be a man of abundant leisure in which to discuss affairs.

The general freight-agent climbs up

to his place through a long list of subordinate offices. He knows about the weight and bulk of freight—perhaps, because he long has handled it at some station. He is familiar through long experience with every fine point of the freight classification.

He understands thoroughly the resources of the country that is tributary to the hundreds or thousands of miles through which his road passes. The strife for business at junction or other competitive points makes it imperative that he shall know what his rivals are doing, so that none of them shall catch him napping.

Men Who Get the Freight.

Connected with the general freight office, when it is located in a large city, are a number of freight solicitors who report either directly to that office or to the heads of the branch offices which are located at various strategic points throughout the town. These men are like the city salesmen of a large mercantile house. Wherever there is a possibility of getting business they go after it.

If the newspapers mention the letting of a big contract which will involve the transportation of large quantities of material, they are at the contractor's office in the morning awaiting his arrival so as to present the advantages of having the business transported over their line.

They have a wide acquaintance, and their work brings them in touch with every class of industry and with all sorts of people. As all the competing railroads are practically on an even basis as far as rates are concerned, the successful solicitor must be a man of pleasing personality.

He must know how to interpret the freight classification correctly and must also be familiar not only with the rates which it governs, but also with a vast number of commodity and special rates. Like the commercial salesman he must have a thorough knowledge of the goods he is selling, and must make no mistakes when quoting prices.

The salaries of these freight solicitors vary according to their experience, acquaintance, and efficiency. A beginner would not receive over \$40 a month. He

would be sent out at first to answer requests for rates on specific classes of shipments, with the information carefully prepared in advance, and with instructions to refer any new inquiry to the office for further instructions.

By the time he had learned his job thoroughly and was able to be trusted to "run alone," his salary would be double that. If he rose to be one of the crack business getters in his department, he could doubtless command \$125 a month.

There are cases where freight solicitors are paid as high as \$175 a month, but they are men of exceptional talents in that line, and they generally become division freight-agents when they are able to command that salary.

A boy or a young man who wishes to enter this branch of the freight department—and by many it is considered one of the best in which to acquire a knowledge and experience that will be of great service in securing future advancement—should make his application to the division freight-agent in the district in which he is located. The general freight-agent, except on very large systems where the departments are minutely subdivided, has the hiring of the freight solicitors who cover the city or section of the country in which the general offices are located. These men report direct to his office. Application for this employment should be made by letter or in person to that official.

The Inside Force.

But the soliciting end of a freight department, while extremely important, is no more so than the great office forces—the men who by letter and by record-book carry on the work that the solicitors have begun. It is only a part of the detail to secure the business. Once obtained it must be looked after most carefully, and for this the railroad needs not only a large but an able and energetic clerical force.

Each freight department of a large railroad, though individual lines differ in their planning, is divided, as regards its inside workings, into approximately these sub-departments: The Freight Tariff Bureau or Rate Department, the Freight Claim Department, the Tracing Department, and the Overcharge Department.

Closely allied with these, though not a part of the Freight Department itself is the car accountant's office—a part of the Accounting Department—which keeps track of where the cars are.

How large these sub-departments are, may be realized from the records of one of the large Eastern railroads that has in its main office twenty-five clerks in its Overcharge Department alone, forty clerks in its Rate Department, sixty to seventy-five clerks in its Freight Claim Department, and fifteen in its Tracing Department—about one hundred and fifty in all.

Makers of Rates.

The titles of these departments are largely self-explanatory. Each is presided over by a highly qualified executive clerk, and the Claim Department is generally so important that its head has his name in the list of officials under the title of freight claim-agent.

The Freight Tariff or Rate Bureau has in direct charge the making up of all the freight rates—those based on the classification, commodity rates, special rates, local and through rates. In the matter of through rates, however, they furnish only the data which is necessary for the heads of the Traffic Department to determine the basis on which they shall adjust the through charges and the proportions thereof with the connecting lines who participate in hauling the merchandise.

Whenever changes in through rates occur—and that is always happening in some part of the country—the Rate Department sees that its tariffs are adjusted as quickly as possible to meet the changed conditions. The schedules of freight rates that continually come from this office are passed upon by the general freight-agent and by the traffic-manager before they are issued for use.

This department is in charge of a chief clerk, who is generally a member of the freight tariff committees throughout the country, and has to keep in close touch with them personally and by correspondence. Rate making in the freight department of a railroad is a science by itself that takes the ablest man a number of years to be classed as an expert.

It is a common saying that no one ever learns it thoroughly. The experts, however, are among the best-paid men in the clerical force of the Traffic Department. It is rare for them, however, to rise to the higher-executive positions.

The Freight Tariff Bureau's head, on an important line, will receive on the average \$200 a month salary. His chief assistants will draw from \$100 to \$150 a month. Those who do the routine work will get the usual scale of clerical labor, according to their knowledge and efficiency, from \$40 to \$75 or a little over.

If mistakes and accidents never happened, the Freight Claim Department would not exist. But where there are millions of individual shipments each year—as there are on each of the great railway systems—there must be a certain proportion of errors, out of which claims arise. The classes of freight claims are: loss, damage, and overcharge.

The number and amount of claims are very great on even the best organized line. Each one has to be carefully investigated, which takes endless time and patience.

Shippers put in claims hastily in many cases. The consignee of a few pieces of household goods, for instance, does not receive them as promptly as he thinks he should. He concludes that they are lost and writes the railroad company that such is the case, usually claiming a value on the goods that is far in excess of what they are worth.

Most Interesting Department.

The Claim Department puts a number on his letter and replies asking for the original bill of lading so they can make investigation. Meantime the goods have arrived, and nothing more is heard about it.

Nevertheless, on many roads this is numbered and listed as a claim. This partly explains why the number of claims per year on a large system will often pass the hundred-thousand mark.

At best the adjustment of claims is one of the most vexatious branches of the service. It is to the road's interest to make prompt and full settlement of every just claim. But every claim must be examined carefully before it is passed.

In a case such as that of the household goods, if they had been really lost, or were received in a damaged condition, the railroad company would have to follow up the matter step by step, and ascertain every particular as to where they were lost and why or how much they were damaged. This investigation is necessary in order to prevent the road from being imposed upon, and it is also necessary to ascertain the cause of the mishap, for upon that may hinge something important concerning the efficiency of the service.

Making of Mail.

If the claim is for local traffic, its adjustment is comparatively simple; but if several other roads have handled the merchandise before it was lost or delivered in a damaged condition to the consignee, it becomes a complex matter to fix the blame, and the result is seemingly endless correspondence caused by the making of innumerable inquiries. Occasionally a single claim-file will contain no less than two thousand separate letters and documents before it is finally settled.

Paid or rejected it must be, however, as quickly as the methodical investigation is finished, and the efforts of most railroads are in the direction of investigating claims to their conclusion with the utmost despatch. Otherwise their business is likely to suffer.

In the Freight Claim Department, where the Overcharge Department is a distinct organization, the chief's job is worth from \$200 to \$250 as a general thing. His assistant will draw from \$150 to \$200. There will be a few employees at \$100, but the most of them will get from \$40 up for the clerical work.

The Simple Side of It.

Overcharge claims are more easily adjusted than those for loss and damage. They outnumber the loss and damage claims many times.

These overcharge claims arise in this way. There is an enormous number of rates that an agent, even at the smallest station, has to try to master.

If he charges too low a rate on the way-bill it is the custom of some roads

to recharge the difference between that and the right rate back on the unfortunate agent. If he is not able to collect this undercharge from the shipper or consignee he has to pay it out of his own pocket.

Therefore, in order to obviate this, the agent takes the safe side and charges the highest rate that he thinks the traffic will bear, and an overcharge results. If the receiving agent does not detect it—and he has so much to do that he generally does not—the error is caught, usually, when the copy of the way-bill is revised in the general office.

Frequently the consignee receives notice that there is money due him on account of an overcharge in rate before he knows it himself. Large customers of the railways, however, usually keep a rate clerk of their own and send in their claims as quickly as the errors are found.

The Overcharge Department's scale of salaries is not quite so high as the Freight Claim Department's because it handles almost solely questions of fact and not those involving long investigation, niceties of judgment, or discretion. The chief of this division receives about \$150 a month and has a number of expert rate clerks who draw from \$75 to \$100 a month each. The lesser salaries run about the same as those in the claim office.

Sherlock Holmes Bureau.

When a shipper thinks his goods are slow in reaching destination he writes or calls up the Freight Department on the telephone and asks them to start a tracer after them. The Tracing Department forthwith proceeds to do so by first ascertaining the number of the car in which the shipment was made and other details, and then writing or wiring each division point between point of origin and destination. The car numbers are checked at each point and the receiving agent is also communicated with.

If, in the case of less than car-load shipments, the car in which the goods were shipped reaches the destination of the merchandise being traced minus the goods, several things may have happened to account for the loss. The goods may have been stolen—which is rare—or they may have been hastily unloaded with

other goods bearing marks that resembled theirs in the lantern light. Again, they may have been overlooked and carried far beyond their destination, thus becoming astray freight.

It is the business of the Tracing Department to find out what became of the goods, if possible. If it cannot, and the goods have disappeared, then its file becomes the basis of settlement in the Freight Claim Department in the regular order of things.

Frequently, where one or more carloads of perishable or much needed freight is being hurried through, the shipper requests the railway to "trace by wire." The Tracing Department thereupon receives reports from all the division points of the passage of the car or cars, and keeps the consignee and consignor advised of their progress, if it is so desired. This obviates the cars being delayed in transit except by extraordinary causes.

The Tracing Department's chief executive is on about the same salary basis as the head of the Overcharge Department. Aside from his principal assistant, however, the average of salaries in this department is between \$40 and \$50 a month. The principal qualification is care and exactness in keeping the multitude of records straight.

The Man of Figures.

The car accountant's office is the one upon which the Freight Department depends for essential information regarding the movement of its merchandise and the location of the supply of empty cars. The car accountant is advised daily by agents and conductors of the location and use of each car on the line, whether it is loaded or empty, in good or bad order.

His work is one of immense routine and requires the utmost exactitude on the part of every member of his large staff of clerks. Without the car accountant's aid the Freight Department, especially, would be almost helpless.

The car accountant is paid \$200 to \$250 a month, and even more on a big system. His principal aides get probably \$175 and \$150 a month.

The bulk of the work is purely clerical, the entering up in great books of endless

car numbers, the going over of thousands of reports each day. It is the kind of drudgery that work of that sort cannot escape being, and there are more salaries of \$40 and \$50 a month paid in this department than those over \$65.

Away from the general office of the railway, in almost every large city, on its own line, and in practically every city in the United States from which it may hope to draw freight traffic for a greater or less proportion of the through haul, are its district or division freight-agents. Each of these keeps informed of the traffic conditions at each point in his territory.

The Feelers of the Service.

He has to know the producers and merchants of each town in his district, the kind and quantity of the merchandise shipped and received by them. He watches the fluctuations in shipments to see whether a decrease in their amount is caused by decreased demand, ill-adjusted rates, inadequate facilities for reaching markets, or whether they are being diverted over competing lines.

The division freight-agent located on the line of his own road keeps in close touch with the station-agents on his division. He advises the general freight-agent of traffic situation in his particular district, and of any need for rate adjustments to meet changing conditions.

These district or division agents, according to the importance of the territory in which they are situated, have a clerical staff and force of solicitors to drum up business for the road. They are of great importance to the Freight Department and their ranks are most frequently recruited from the most able of the freight solicitors, or from the large number of station-agents on the line.

A position of this sort pays from \$175 a month up, according to the importance of the territory that has to be looked after.

The boy or man who wishes to secure a place in any of these divisions of the General Freight Department should ordinarily apply to the head of the division, either personally or by letter, in either case stating his qualifications and references as briefly as possible.

If he is a stenographer, the chances for quick employment and more rapid advancement are much increased. For the applicant who is inexperienced there is nothing to do except to begin among the bottom rounds of the ladder, to master his own duties first and then to learn all he can of what the work is that is going on about him.

The Open Door.

A youth of eighteen or twenty is regarded as the most desirable timber in these minor places, for if he has the right stuff in him he learns quickly and is ready for promotion when it offers. The rule in all railroads is to fill vacancies by promotion from positions next in line—providing, of course, the man next below is competent.

The aspirant for a place in the general freight office itself should address himself to the head of that department. The run of salaries there, for ordinary labor, is about the same as it is in the subordinate divisions. The general freight-agent's chief clerk will receive \$125 to \$150 a month.

There are, of course, one or more assistant general freight-agents whose salaries run from \$250 a month up, but these high positions, naturally, are filled by men of long years of service and wide experience.

If an application is made personally, the applicant will doubtless be asked to write a letter detailing his qualifications, so that it may be placed on file. It is often the belief that this request is but a convenient excuse for getting rid of him.

Importance of the Agent.

This is not so. These letters of application are carefully classified as they are filed, and whenever a vacancy occurs that cannot be filled from the staff in the office they are taken out and gone over most scrupulously. Vacancies of this sort do not occur every day, therefore the applicant may hear nothing of his letter for weeks or months before he is asked to call.

Every station-agent on a railway is an indirect employee of the Freight Depart-

ment—one of its great mainstays, in fact. He gets small pay usually, but at the smaller competitive points especially, where the road has no other representative, he can do much toward increasing his line's business.

If he is a better hustler than his competitor, the volume of freight from his station steadily increases until some day there is a vacancy at a more important station or in a higher post in another department, and he is promoted.

Most station-agents start in as telegraph operators. In fact it is the rule that at small stations the agent shall know telegraphy. A station of this sort, where one man does all the work, pays \$40 a month on the average.

At larger stations where there are day and night operators, a car clerk, etc., the pay will run from \$60 to \$100 a month. The latter figure is well up toward the top of the scale.

The Road to Fame.

As has been said, a knowledge of telegraphy is one of the most frequent stepping-stones to the station-agent's place. There are many schools that teach telegraphy, and it can also be studied at home. The superintendent of telegraph is frequently called upon to send men to fill these minor agencies.

An operator desiring to become a station-agent would do well to file his application with that official, and also with the general superintendent, or whichever of his assistants in the Operating Department has charge of appointing agents. The custom varies on different roads.

Aspirants—young men especially—who have had no experience and desire to enter the railway service by this door, should apply to the station-agent in their own town, if he has an office force. The smallest position is usually that of station-messenger, which will pay perhaps \$15 or \$20 a month.

But there is always an opportunity for the youth who wishes to learn to become familiar with the station routine and with telegraphy as well. It will be encouraging for him to remember that probably more railway officials, from presidents down, started in as station-agents and operators than as anything else.

TREASURE OF THE WORLD.


BY STEPHEN CHALMERS,

Author of "The Cataclysm," "A Daughter of the Armada," etc.

A Man's Honor, a Woman's Love, and a Shylock's Pound of Flesh.

CHAPTER XV.

Good-By?

T mattered little where the Swede went. It matters little, as a rule, where a picked-up sailor wants to go. Higgs wanted to proceed to Colon, while Miss Harding wished to return to New York as soon as possible.

Naturally, Philip Sand being master, Miss Harding's wish was law. Presently the Chameleon headed in a northwesterly direction.

The captain briefly told his story. It was merely an amplification of what the mate had related. Pearce, however, was of the opinion that some one was behind the cable of the shipping-agents, ordering a search for the survivors of the *Reuelan*.

"I don't know who it was," said Pearce, "unless it was the owner of the Chameleon."

"Who is he, by the way?" asked Philip, with assumed indifference. "I have forgotten for the moment."

The captain looked curiously at him for a moment, then he said:

"The original owner was a Mr. Harding—Frederick Harding. I sailed this yacht before, Mr. Sand. In fact, it just so happened that you turned up to charter her just as all hands were about to be paid off. Most of them were, in fact."

"Harding?" mused Philip.

"Yes," said Pearce, laughing. "I'll tell you something more. This Miss Harding whom you brought aboard with you is—

a relation of the owner. Perhaps that's why there were prompt searching orders."

"M-m-m-m!" hummed Philip.

He thought he began to understand. He remembered that when Miss Harding said she knew the Chameleon, and that she had sailed on her as a guest of Merton Scragg, he had been filled with the conviction that Scragg was not the owner's name, but that the real name had a familiar sound, though he could not recall it. Harding! Of course! It was, and should have been, familiar.

But where did Merton Scragg come in? Miss Harding had said that she had sailed on the Chameleon "as a guest of Merton Scragg." She could hardly sail as a *guest* of her relative, Frederick Harding. Where did Merton Scragg come in?

Then a light dawned on Philip's mind. The yacht had been given up just when he chartered it. Miss Harding had distinctly stated that Scragg was the owner of it. The ghost of Miss Sharpe's warning voice came up in the conversation. There was something here which was not to be discussed, but Philip thought he understood.

Miss Harding's father had fallen into the hands of the skinflint Scragg. Scragg *was* the owner of the yacht—by a mortgage, perhaps, just as he was owner of Philip Sand, body and soul. Yet Miss Harding had distinctly stated that her father was rich!

However, the matter was of too delicate a nature for discussion with Captain Pearce. Philip gave the order for the run to New York, saying that the mat-

ter of further orders would be discussed later.

"How about the treasure, Mr. Sand?"

"I'm tired of treasure," said Philip wearily.

And, indeed, a new mood had come upon him. It seemed that the adventure was over, and that no future adventure could be as pleasant or as sweet. Now that Miss Harding was safe and was about to be restored to her proper environment, the bottom had fallen out of so many things that Philip was quite disheartened.

Nevertheless, despite his determination to freeze her back into her shell of reserve, he spent many hours of the precious three days with her. One day he kept away from her altogether, but after dinner in the evening he could stand it no longer. He sought her out where she sat abaft the funnel. He sank into a chair by her side and was silent.

"Philip," she said suddenly. It was the first time she had called him by his Christian name since coming off in the boat from the island. "Philip, after you leave me at New York, what are you going to do?"

For a moment he was dumb. The question had come so abruptly. It was so terse and pointed. It covered the whole problem over which his heart and mind had been battling.

"When I leave you at New York?" he echoed.

"Yes," she said quietly.

He was, somehow, disappointed at her quiet acceptance of the necessity. But it *was* necessity.

"What am I going to do?"

"Yes. You are going to do something, of course."

Her tone jarred him. It was so unlike her.

"Does it really interest you to know?" he asked.

"Philip—you know it does." And he was sorry on the instant.

"Well, I chartered this yacht to hunt treasure," he said. "Having found the treasure and having time to kill, before time kills me, I suppose I shall have to find other mischief for my idle hands to do."

"What like?"

"Trade, for instance. Take cargoes

and deliver them, and get more cargoes and amass money and give it to the sailors to spend. I might have a string-orchestra aboard to liven the men as they load up with coconuts or logwood. There's lots of things I can and will do."

"Philip," she said gravely, "you are in a very bad frame of mind. I understand and sympathize thoroughly. But, listen to me. I want you to do something—to do something for me."

He sat up, turned around, and caught her hand.

"Verina," he said hoarsely, "you know that there is nothing I would not do for you. Tell me what to do for you, and I will indeed have something to do—something it will be a joy to do."

"It is a very simple thing, Philip. I want you to say good-by to me at New York, believing that all may yet be well—for you. Then I want you to sail right out to the open sea and stay there. You once spoke of filibustering and trading, and you said something just now about cargoes. Go and do these things, Philip. Forget your illness. Forget everything—"

"Well, if it will help you, think of me sometimes, and know that my prayer is that you may grow strong and well. That is all I want, Philip. Will you do this for me?"

"I will, Verina," said he; "but what good will it do?"

"I think it will do lots of good. Remember, I saw you when you came aboard the Revuelan. You did not know that I saw you; but I did, and I have thought of it since—since you told me you were ill. I remember now that you looked just a little bit pale and languid. But you are not that now. You look brown and sinewy and strong and—and—" She suddenly bent forward and took one of his hands in both of hers. "Philip," she whispered tensely, "I don't want you to die. You mustn't die. You must fight to live, because it means much to me."

"I understand," he said. "Thank you—and God bless you!"

He lay back in his chair, quite happy for the moment. Then the lean phantom of Merton Scragg arose before him. Merton Scragg! Even if he did get well, there was the mortgage.

Then his heart leaped. Everything in

his body responded to the fighting call. He would get well. He would make money to buy back his life. He had less than eleven months. To make twenty thousand dollars, plus interest, in that time was no small task for a man with no particular or special ability. But he had the yacht, and he had optimism and determination; and there was a prize to be his if he won health and twenty thousand dollars—Verina!

"And after that?" he said.

"After that?" she echoed very softly. "Let us speak of that—then. You will come to me—come to see me, for I must know if my doctoring is better than my cooking; and I am sure it is. You will come to me at the end of the year and tell me how it has gone with you. Philip, I will be waiting to look into your face and know that you are well and strong."

He understood all that she did not say. His eyes were filled with tears and his throat thick with tenderness. He took one of her hands gently and almost reverentially kissed the finger-tips.

"I will try—I will try so hard. I will fight!"

"Good!" she said bravely, and the little fingers closed tightly over his hand. "To-morrow, then, I shall be in New York. I will leave you my address. You are not to leave the yacht. As soon as you have said—good-by to me—I know my way home, surely—you will aboutship, as you salt-water people say, and heave away on the raging main. Good night, Philip. You have been very good—better than any man I ever knew. You know that I feel that, don't you?"

"Verina," he said, "I know every word that you *would* say, and you know what is in my heart. Good night, dear!"

"You may come in!" cried Verina.

Philip entered the cabin. She stood in the middle of the little room, and the sunlight shone through the port. Outside, tugboats shrieked and big liners growled. Close by, a ferry-house bell clanged, and a great river castle slid slowly out across the stream.

Verina was dressed in the height of fashion. The yacht had been but an hour in port, but in that time a young woman had come aboard with two suitcases and a bandbox. And now Verina

Harding was again arrayed as a sweet American girl in summer costume.

As Philip entered, she held out a card to him.

"Put that away safely until the time comes when you want to find me," she said.

He took the card mechanically. He was looking at her with the eyes of love's worship. She laughed happily.

"Do I look like a castaway on a desert island?" she inquired archly.

"You are the dearest woman in the world—and the best loved!" said he.

"Philip," she said reproachfully, "we mustn't go as far as that." He noticed the "we." It was advice, not reproach.

"I suppose you are right. You *are* right," he said.

Then there was silence.

"I am ready now," she said at last. There was a little quiver in her words. "Good-by, Philip."

"Good-by," he said brokenly. He stood away from her, with his hands hanging helplessly at his side.

For a moment she looked, then her eyes filled with tears. In another moment she was in his arms.

"Philip! Philip!" she whispered. "What fools we are not to say what is in our hearts! You are the best and noblest thing in my life. Don't think I am sending you away. I want to make you well and strong again, so that we can be happy always. And—Philip—if it is not to be, remember this: I love you, and I will wait—oh, I will be *patient*; and so must you, because we must pay for our happiness."

He drew her close to him.

"Yes, perhaps we have been foolish," he said. "Now, you have made me happy. I love you, dear—love you the more because I cannot have you. But I will go away and fight—oh, I shall fight so hard, for it is not my happiness only. It is yours now. I *must* win!"

"You shall," she whispered, drawing away from him.

He opened the door for her. She reached out her hand and pushed it back again. It was then, as she stood looking her last upon him, that he noticed a string of pearls around her neck.

"My fishing-line," he said huskily.

"Yes. Kiss me. . . . Good-by."

He would have followed her to the deck, but she said "No." Then the door closed, and he was alone. He looked out of the port-hole. The sun-ray was slanting across the cabin. The air breathed of her late presence. A fresh red rose lay upon the pillow where she had slept. He took it up tenderly and touched his lips with it.

"I *must* find a way back to life," he said to the rose.

CHAPTER XVI.

The Doctor's Sentence.

A LITTLE less than eleven months after Philip Sand said good-by to Verina Harding, the yacht Chameleon steamed into New York Harbor.

Philip himself stood on the bridge beside Captain Pearce, and looked eagerly at the tall buildings and the shipping and the palisades ahead.

Verina's advice had been good. At least, it had been well meant; and, of course, she had not known of that other complication. Philip had obeyed her injunction to the letter. He had manfully fought for life. He had been a trader among the Caribbean Islands. He had been a filibuster around the Honduran ports. He had been a smuggler between Curaçao, Margarita, and Venezuela. He had steadfastly refused to think of his misfortune.

He had dreamed night and day. He had allowed himself to think that all things were possible, and especially he had taken for accomplished the paying off of the mortgage on his life and his marriage to Verina Harding.

Dreaming *hard* is half the battle in life. Dreaming hard is optimism refined—the belief that a thing shall be. Some people say that half the efficacy of prayer is the desire of good—the recording of wishes with the belief that they will be fulfilled.

In Philip's case, dreaming hard seemed to have achieved much. Any man who saw him immediately thought: "What a fine physique!" And, indeed, he looked the embodiment of health, strength, and vigor.

He had little fear, however, of Lauriston's verdict. His mind was filled with

that other difficulty—Merton Scragg and the twenty thousand dollars. For Philip was a man of honor. He had played his cards; and if he had lost, he was not going to cry mercy of his opponent.

But there was a bitter pill—the bitter pill of many a man's life. He had had the twenty thousand dollars—the necessary amount to buy his life back—and he had lost it. At first, he had traded in any old thing—logwood, coconuts, bananas, and other island produce. He had run the gantlet with firearms disguised as "bedsteads and lima-beans." He had entered into anything and everything that promised life and interest in life.

And because he cared little and rushed into things with a gambler's spirit, he had *won*. He had made money.

Then came that last and greatest risk—when he had invested his earned twenty thousand dollars in a venture—and *lost*!

To the treasure in the channel he had paid no attention. He had had enough of the treasure. Perhaps some of the superstitious talk which he had hurled at the heads of Howells and his men had rebounded upon his own senses. Perhaps his dream of what happened to all who had owned that treasure—and what, to his own knowledge, had happened to its last owners—had deterred, or driven from his mind, the idea of raising it.

His first thought had been to win back that treasure, against which all treasures of the world are as dross—life! To keep in the open air, to buoy his own interest in life, to forget the why and wherefore of his struggle, and just *live*—these constituted the commandments of his creed.

And as money began to pour into his coffers, he had realized chucklingly that taking care of his life meant taking care of its wherewithal. Thereafter he had thought even less of Scragg and the mortgage. The first thing was health. Perhaps he had won that, or very nearly, as he had won back the twenty thousand dollars—or very nearly.

But "very nearly" in this case meant not at all. He had lost his money; and, whether he had gained health or not, tomorrow must see him dead, unless some unforeseen thing happened to show him a way out of his difficulty.

Not for a moment did he think of crying off his bargain, although the sweet

ties of life were beckoning him from the path of honor. It would be easy enough to say to Scragg:

"I am well, and you can do your worst. No court would uphold your infamous stipulation."

Yet no stipulation had been made. He remembered that distinctly. He remembered Merton Scragg's words when he sought to specify the stipulation himself.

"Mr. Sand," Merton Scragg had said, "I think we have said enough."

It was understood, and it was as clearly part of the contract as if it had been set on paper, signed and sealed by both parties in the presence of witnesses. And no part of the transaction was on paper, save that Philip had willed Scragg his entire property, which at the present moment consisted of a few hundred dollars, some old books, fifty thousand dollars in insurance, and a faded red rose.

Yet Philip had not given up hope. He believed that Scragg was a human being, at least; and he had heard stories of the man's private life which, although strangely at variance with the popular idea of the man, might be true.

It should be understood, however, that Philip had no intention of going to Scragg and crying mercy of the bargain. He was not of that sort. He had made the bargain with his eyes open. He had taken and enjoyed the man's money—and he *had* enjoyed it. Now, being a gentleman, a sportsman, and a man of refined honor, he was not going to cry *peccavi*.

But he would go to Merton Scragg and tell him of the treasure. At least, he would ascertain Scragg's attitude, and it was just possible that thirty days' grace might be forthcoming. If so, what might he not do in thirty days? He might raise the golden ingots and pay off the twenty thousand dollars, with interest.

But, of course, everything depended upon Lauriston's verdict. If he was not cured of the disease, there would be little use in clutching at a straw to prolong life. He had enjoyed his year. He had tasted love, life, travel, and adventure. If the end were merely to be deferred, then—why not now? Why not fulfil his bargain with honor and a smile?

There were a thousand possibilities. One thought which recurred, despite his hatred of it, was the fact that Verina

Harding loved him and that she was rich. If he married her— He put the thought away repeatedly, yet it had a peculiarly insistent way of coming back again and again.

A man of less refined instincts and a less rigid code of morals would have lingered, at least, over the thought of marrying her and borrowing twenty thousand dollars. He decided to think no more of anything until he had seen Lauriston.

An hour later he was at the physician's office. The waiting-room was filled, and Philip had to wait for some time. There was a secretary—a pretty young woman—whose business was to note the patients as they entered, and this young woman kept the physician in his inner sanctum duly notified of the arrivals. Most of them she knew by name; but Philip seemed a stranger to her, although he nodded as he entered and addressed her by name.

As he sat there in the waiting-room, reading a magazine six months old, he was conscious that the secretary was studying him. She had seen him before, but— He might be a stranger, and strangers were not encouraged unless they came by appointment. Finally she arose and came over to him.

"You are Mr.—"

"Sand—Philip Sand. Have you forgotten me, Miss Armstrong?"

"Why, Mr. Sand, I confess I had. You have been away—so long and—you are looking so—changed."

A moment later she was whispering into the telephone. Presently in walked Lauriston. The next patient arose to take precedence, but Lauriston smiled and said:

"Excuse me, Miss Hollis. I have an urgent appointment with a gentleman here whom I overlooked yesterday. I am sure you won't mind waiting a few minutes."

All the time his eyes were upon Philip, and his face expressed astonishment.

"Come this way, Mr. Sand," he said.

The physician presently closed the inner door of the sanctum behind him. For once the reserved, gloomy doctor was almost human.

"Upon my word! Sand, you are marvelous. But, there!" he warned. "Don't

get your hopes up in the air. You never can tell. Peel off your clothes. I want to listen."

Philip smilingly stripped. Lauriston watched him curiously—noted the full expanse of chest and the sun-tanned collar above the breast-bones. There was a queer light in the physician's eyes as he came toward the patient with the stethoscope dangling from the back of his ears.

For a moment he looked down into the clear eyes of the man whom he had practically condemned to death. Then he grunted and adjusted the Y-shaped tubes.

"Take a long breath," said he. "Say '*Ah!*' Now whisper '*ninety-nine.*'"

There was silence after Philip obeyed the instructions. Presently Lugubrious Larry took the stethoscope from his ears, laid them on the table, and walked up and down the room for a half-minute. Then he faced Philip with an unbelieving light in his eyes.

"Sand," said he, "if I did not know to the contrary, and any man told me that you had ever had anything the matter with your lungs, I should say that he was a blatant ass. *You are as sound as a bell!*"

Philip took the physician's outstretched hand mechanically. His heart was beating fiercely, joyously, rapidly. He was thinking of Verina Harding and the future. Then, like a phantom, arose the specter of *Shylock!*

CHAPTER XVII.

A Woman's Claim.

AN hour later, history, as if repeating itself, brought Philip Sand to the park; and once more he found himself seated on a bench, watching the tame ducks sailing about the pond, the children feeding them with broken crackers, and the self-conscious policeman twirling his locust on his wrist-thong.

A year had passed—a year all but a day—and the year was like the day that it wanted. So many things had happened while the trees had lost their foliage, while the ducks had squawked in their winter quarters, while the pond had frozen over.

He put his right hand into his left breast-pocket and slowly drew forth a

card. Should he see her? No, he should not. Yet, while his conscience was telling him what was best for him and for her, his heart was anticipating the meeting.

To see her again! All he had to do was to start *now*, and in half an hour he would be facing her—*Verina Harding*—looking into her eyes—into the eyes of *Verina Harding*. He must not go; yet already he was going.

"There must be some way out," he said to himself. "Perhaps I should have told her that, even if I got better, I had to reckon with Scragg; but I never dreamed that I would be *as sound as a bell*. That's pretty sound; and there is no reason on earth, save one, why I shouldn't live a long, honorable, honored, and prosperous life. Only—by noon to-morrow I must either be dead or ready with twenty thousand dollars, plus interest."

He tried to figure out just how much interest was due, and it came to him suddenly that there had been no interest spoken of. Or, to be strict about the matter, the interest was to be one hundred and fifty per cent. Merton Scragg was to get fifty thousand dollars in return for his loaned twenty thousand dollars. Of course, the old skinflint had not reckoned on getting a man's life on top of that; but, if Scragg was really a *Shylock*, he would demand his money or his life. The latter alternative meant life first and money afterward.

"Well," said Philip, with a sudden glowing of his blood, "maybe Verina can tell me. I'm going to see her just for that reason, to tell her all about it—to ask her advice." Then he added to himself in a still, small voice: "Philip, you are a liar! You are going to see her because you *must!*"

The address took him to a quiet part of the unromantic Bronx. The house was an old Colonial thing, half hidden among trees. Around its environs brick tenements—very new ones—were squeezing up. It was typical of the Bronx—yesterday and to-morrow hugging each other.

There was a broken-down wall, with a wooden gate set in the middle of it. The gate whined as Philip swung it open and advanced up a grass-grown path. Before the old house there was a stump

of what must have been at one time a magnificent tree. Around this stump was a bench, and on the bench sat Verina, sewing.

She lifted her eyes as he came up. Her face turned pale. Then she stood up and awaited him with a glorious expression about her mouth. He took off his hat and walked in the air toward her, his eyes never leaving her face.

"I am here," said he quietly. He had not known how his feelings would greet her.

She held out her hand.

"And I was right—" she began, her speech breaking off as if there was something which she wished to add, but was afraid to.

"Were you going to call me 'Mr. Sand?'" he asked.

"No—Philip."

"Thank-you! Shall we talk here?"

"No," she said, still with her eyes on his face, his brow, his neck, his shoulders—roaming over him. "Come in."

As in a dream, she turned and walked up the rickety old steps. He followed, only conscious that it was she—Verina! His eyes were enchanted by the beautiful figure, the dear, familiar head and hair, and the sudden reality of her face.

She entered a dim hall, he close at her heels. She turned and shut the door, in which were two panels of crimson glass. The light fell rich and ruddy upon her as she faced him.

"Philip!" she whispered, and her eyes filled.

"My beloved!" he said.

Then he remembered—that is, presently. She took him into a big, old-fashioned drawing-room and drew him down to a seat beside her.

"Now, what is the story?"

"Verina," he said slowly and earnestly, "I think I am worse off than ever. You see, I did not tell you everything. I—"

"First, tell me," she cried, "what did the doctor say?"

"He says I'm—I'm—as sound as a bell," said Philip, wondering how he was to come to the point without hurting her.

"Then nothing matters!" she whispered jubilantly.

"No—that makes my position worse," he said. "I have a confession to make.

I never thought that this was possible, or—"

Then he told her. At first her face expressed amusement, then amazement, then alarm, then terror.

"But—but"—she stammered—"this is—absurd! I never heard of anything so absurd. You are not going to die. How are you to die between now and tomorrow noon if—if God doesn't will it so?"

Philip groaned. "But I took his money," he managed to say.

"Pay it back," she said sharply.

"I can't," said he lamely. "I couldn't pay back a tenth of it. I lost everything."

"Then let me lend it to you. I have plenty."

Philip shook his head emphatically.

"Then"—and her words came very slowly, very searchingly—"what are you going to do—as a man of honor?"

Philip was silent. He dared not look at her, let alone speak. He knew that she understood. Presently she got up and walked about the room.

"Philip," she said softly and thoughtfully, "I do not think this is a time for pretense. You know that I love you, and I have never doubted your love. Is not your love big enough to surmount petty things?"

"I do not understand you," he said.

"Loving one another, was it not understood, as love is always understood, that when obstacles were cleared away we should marry?"

"This is worse than the treasure I couldn't enjoy," said Philip.

She stopped in front of him. Her hands were lightly clasped before her. Her eyes were slightly downcast, and her face crimson; but she had decided the question, and she meant to be brave about the matter.

"Philip, will you marry me—to-day?" she said.

For a moment the room seemed to whirl about his head. He only saw her, beautiful and womanly in her confusion of bravery. He longed to take her in his arms and hold her close—very close.

Presently he understood, but his heart was torn between the natural demand of the life-loving creature and the so-called honor of ethic-bound custom.

"Verina," he almost moaned, "don't tempt me."

"I am not tempting you. I am not trying—altogether trying to solve *your* difficulty. I am fighting for myself, Philip—fighting for my love. Your life is not your own—not since that night on the island. I don't think any man's life is ever quite his own. Somebody loves him. I love you, Philip, and our lives are as one. If you take your own life, it is murdering me."

"I cannot take your money to—to save myself. I could never be happy."

She began to walk about, rapidly and nervously. She toyed with papers, ornaments, and other things in an absent kind of way. Then she turned to something else that momentarily attracted her whirling mind. She understood his horror of marrying her that he might pay off the *Shylock*. She honored him, too, for his reluctance. But she herself had some views on the subject.

"Philip," she said, with her face averted, "I am not good at expressing what is in my heart—in my mind. Perhaps it is because I am so much in earnest. But listen, dear."

"I am listening, Verina," he said huskily.

"I gave you my happiness—I gave it into your keeping when I let you know that I cared. Perhaps I should not have let you know. Perhaps you should not have let me know. But it was my fault. I loved you, and I don't know how it came about. I forgot for a moment that the woman should wait. But—I forgot—and you were so brave and—I loved you so much."

"Never mind that, dear," said Philip. "I was weak and— But we were happy," he added, lifting a haggard face to hers.

"Yes, we were happy. I have been happy all the year—waiting. Philip, I prayed—morning and night—for you. It was just a foolish little prayer; but it was all I could make up, perhaps because I was so much in earnest. I said often and often—in the street here, in the garden, anywhere—'God, make Philip well again.' That was all, and I felt that He would. And you see He did."

There was silence in the room. Philip could not speak, and she was trying to

find once more the lost thread of her argument.

"I gave you my happiness—my life—when I gave you my heart, Philip. Human beings—especially, I think, a man and a woman when they love one another—are peculiarly bound up together. I can understand why you did what you did—a year ago; that is, if you thought you were going to die.

"But you see how things have turned out. You are not going to die. But you owe a man twenty thousand dollars just because you promised that you would be dead.

"But since then, Philip, you have made a graver mistake. You have given me your life—your love. Perhaps you had no right to do it; but perhaps I stole it, and so stole your life.

"It won't do us any help to talk about that, Philip," she went on. "We can't understand these things, but it just shows you that you have no right to barter that which is in the hands of Fate. The wrong was in bartering even a shattered life for money."

"I wouldn't have met you if I hadn't," said Philip, without looking up.

"That was Fate," said Verina. "We can't alter decrees of Fate, Philip; but sometimes we can right what we have done wrong. Most of the acts of human hands can be undone by human hands. Why can't we undo this?"

"I can't take your money," he reiterated. "I could no more sell myself to you than buy you, Verina."

She stamped her foot. "Who speaks of buying and selling?" she cried angrily. "Look at me, Philip!"

He lifted his head as she had commanded. She was standing erect, with her chin slightly lifted. Her lips were quivering, and two tears were perilously near the corners of her eyes.

"Verina!" he said helplessly.

"I know you didn't mean it," she said; "but listen to me. If there is talk about buying and selling, let me say something about taking and stealing and defrauding. If you pursue this foolish—no, I shall not say foolish, for I understand your position—but if you refuse to let me rescue you, what will be the result? Is your life not mine?"

"Does my happiness count for noth-

ing? Are you going to place the fictitious value of so-called honor in the scales with *my* love, *my* life, and *my* happiness? *Don't* you understand me?"

"But how am I to do this consistently with honor—so-called or fictitious?" asked Philip. "Remember, it is the only honor I have, and—I took and spent the man's money."

"I can write a check for twenty thousand dollars and never miss it!" she cried; "and I could not let you go out of my life quite as easily."

He winced—for two reasons. He knew that her direct statement was only uttered because it was no time for pretense. He knew that she was talking the sheerest kind of common sense, but her writing that check—He winced.

"I cannot do it," he said doggedly.

"Philip!" she cried, and her strong attitude seemed to melt like wax. She dropped on her knees at his feet and clung to him. Her voice came to him in incoherent pleadings.

"I cannot do it that way," he said; "but you mustn't give up yet, little woman. I recognize with you that this thing must be adjusted somehow. There must be a way. Put your way aside, dear, and let us think of something else."

In a little while she got up and sat beside him.

"Well," she said, "what do you wish to say—what is your plan?"

"Listen," he said. "There is one chance. I took this man's money. If I had nothing to offer him but a plea for mercy, I should not go near him; but I believe I have something to offer him. If he would give me thirty days' grace, I might get that treasure."

"He will!" cried Verina. "I am sure he will. Oh, Philip, if you could—Go to him—to-day—at once. If he is a human being at all, he will understand. Tell him about me. Tell him I have money, but you won't take it. Let me come with you. If I ask him—"

"Wait a minute," said Philip, smiling at her eagerness. "The trouble is the man. If he is a human being at all, he will, as you say, agree; but it has always been a question whether Merton Scragg is a human being or not."

"Who?" she exclaimed.

"Merton Scragg."

"Is that the man who—" She had arisen to her feet and was staring down at him, his face white and agitated.

"Why, yes," said Philip, puzzled. "Merton Scragg—He's the man."

"Mer-ton Scragg," she said, hardly above a tense, agonized whisper.

For a moment she seemed like a woman turned to cold marble. Then she dropped upon her knees and buried her face in her hands.

CHAPTER XVIII.

His Pound of Flesh.

PHILIP let her be. He sat near her, staring and wondering. Was it possible there were two Merton Scraggs—one the skinflint *Shylock*, who was willing to trade even upon a man's life, who never spent a penny on luxury, who grudged seventeen minutes for his luncheon of coffee and buns, who hoarded every dollar like a miser; the other a man who owned a private yacht and put to sea at intervals with guests of the class and refinement to which Verina Harding undoubtedly belonged?

The suspicion was growing in Philip's mind that the Merton Scragg of Verina's acquaintance was identical with the Merton Scragg of his own. And her present behavior suggested that perhaps there were two sides to this Merton Scragg. Although Philip was positive that Scragg was not the name of the owner of the Chameleon—or, at least, that it was not the name as he had learned it from the agents and from Captain Pearce, he could not drive from his mind the fact that Verina herself had positively declared that it was "Mr. Merton Scragg's yacht."

She had recognized the Chameleon, too, when it sailed into the cave at Caicos Island. And Philip remembered, also, the peculiar recognition between Captain Pearce and Verina Harding when the party came off from the island.

Of course, nothing of all this proved the identity of one Merton Scragg with another. But Pearce had said that the owner's name was Frederick Harding, as the agents had, Philip remembered. Verina had said it was Merton Scragg. And now, at the mention of the man's name, she had sunk by the sofa, and her quiver-

ing shoulders were betraying some strange inward emotional struggle. There was a tangle here.

What had this beautiful, refined woman to do with the lean, hungry-jawed *Shylock* of Wall Street? Philip had sometimes wondered. He had often regretted that he had not asked her directly. But his policy had been to discourage intimacy between her and himself, so that the forgetting—the seemingly mandatory forgetting—might be the easier when the seemingly inevitable time came.

But, as Verina had said, the time for pretense was past. They two were hopelessly bound up in each other. The crisis had come, and her present behavior could not be passed over unexplained.

"Verina," he said, "tell me one thing. Who is your Merton Scragg, and what is he to you?"

A few minutes passed in silence. She arose to her feet and stood by the window with her back to him. Presently she turned her face to him. In her eyes was an expression of bright hope, despite her tears and her pallor.

"Philip," she said, "I believe Fate—or God—is being good to us in a mysterious way. I cannot tell you everything; but Merton Scragg is my father's closest—I will not say dearest—friend. Merton Scragg is a peculiar man—a man whom few people understand. He is a hard man in business—a merciless man.

"But my father is his best friend, although my father is under obligation to him. It might be that in a case of this sort my father's influence would have no effect upon Mr. Scragg. But I am going to try what my father and I can do to influence him. He is, I think, very fond of me—I mean Merton Scragg. I believe I am the only person in the world that he truly loves."

Philip's heart grew heavy again. It seemed that his life lay in the hands of Verina Harding. He thought he saw the position. Her father was under Scragg's thumb, probably more securely than the daughter dreamed. It might even be that the spider made playthings of the father and daughter, who fondly imagined that they had some influence over the old tiger. Yes. . . . She had been on the Chameleon as a guest of Merton Scragg.

Her pleasure was the pleasure of the man of steel. In time he might tire of it. Now would be a test of the genuineness of his affection—if he really had any—for the Hardings.

"Well?" said Philip monotonously. He had little hope or cheer in his heart.

"I know what you are thinking," she said. "You are remembering what the world thinks of Mr. Scragg. You have heard that he is mean, mercenary, and merciless. But there is another side to that man, Philip, and I have seen it. Perhaps you will see it, too.

"It is now one o'clock, Philip. You have time to go to his office in Wall Street. Put the case clearly before him. You need not speak of me if you do not wish to. Tell him about the treasure. You have the ruby pin, and I will give you the string of pearls. Ask him to give you time.

"Talk business to him, and then come back to me—Come to-morrow morning. You have done much to-day—and so have I. Whatever the result is, think well to-night and come to me to-morrow morning."

"I see," he said. "You are determined to save me some way or other. I am to owe you my life."

"I am fighting for my own," she reiterated. "I am trying to rouse in you that sense of honor of which you are so proud."

"Very well," said Philip, "but before I let you make a sacrifice for me, I wish to help myself. Will you promise that you will not speak to your father or communicate with Merton Scragg—at least, until I have seen him and received his answer?"

"I promise," she said, holding out her hand. "Good-by just now, Philip. Go quickly, for time is precious."

A few minutes later he was going downtown. As he went, he puzzled much; but mainly over the fact that Verina had been very cool in her parting with him. She was a strange woman in some ways, he reflected. He remembered how cold-blooded she had seemed aboard the Chameleon when she had said: "What are you going to do after I leave you at New York?"

And now— But perhaps her seeming cold-bloodedness was merely cool-blood-

edness in emergency. Some women are like that.

Merton Scragg's chief clerk looked curiously at Philip as the visiting-card recalled the young man's identity. He hurried into his employer's private office and as hurriedly came out again.

"Mr. Scragg says, will you step in at once, sir?" said the chief clerk.

The iron-faced, rigid man received Philip with a repelling stare.

"Be seated, Mr. Sand. I am groping in my mind for the reason of this unexpected visit," said he coldly.

"I have not come to ask any favor," Philip said, a little warmly. "I merely wish to put you in possession of certain facts which might bring you regret if you discovered them after—"

"Exactly," said Merton Scragg. "You find that your bargain was a rash one. You have found life of more importance than money, Mr. Sand. You have come to put me in possession of certain facts which may carry so much responsibility that the burden of the affair will rest upon me."

"I will not permit you, Mr. Scragg—" began Philip hotly; but the lean, raw-boned financier waved his hand impatiently.

"One moment!" he snapped. "I have not finished. If you object to what I may say in my own office, you have the right to leave it. I bear no ill feeling toward you, sir; but I wish to freshen your memory."

"A year ago you came to me and borrowed twenty thousand dollars upon your insurance policies, assuring me that the best specialist in the city had given you only a year to live. I expressly asked you—three times I think—what security would be mine against the contingency of your not dying. We did not go into painful details, but you assured me that you would be dead. I warned you, Mr. Sand, that life was sweet—even to an old man like myself—neither blessed with youth, great health, or popularity."

"After consideration, I loaned you the money, for I understood the position in which you were placed. To me it was a perfectly legitimate transaction. More than that, I perceived that I might be doing some good in making the last year of your life pleasant."

"You will recall that it was I who objected to your placing the understood stipulation upon paper; not because, as I perhaps led you to think, that I realized the incriminating nature of such a document, but because I foresaw that, if by any chance you regained your health or tired of your bargain, you would come begging at the end of three hundred and sixty-five days—as you have done!"

"You are quite in error, Mr. Scragg," said Philip, his coolness regained, although his heart was like molten lead. "My honor has suffered none at the prospect of death to-morrow. I—"

"That is what I supposed at the time—that you were a man of strict honor—as your father was before you," said Scragg; but his eyes were fixed curiously on the young man's face, and he was thinking of Philip's last words. So the young man contemplated suicide, after all!

"Had I come to the end of the allotted days, with no hope of continued life," said Philip, "or without the means or any prospect of paying back to you the money which I borrowed on my life, I should not be here. As it is, I am here to make a proposition which you are at liberty to accept or decline, without any further discussion of it."

"You overlook one point, Mr. Sand," said Scragg with forbidding iciness. "I must either accept any proposition you may make, or take upon my shoulders the guilt of what a moral world might call by an ugly name—murder, Mr. Sand."

Philip knew that this was a truth. He hung his head, and there was silence, broken only by the tapping of Merton Scragg's lean fingers on the desk-top.

"But," said the miser, "you may proceed, Mr. Sand, for possibly your proposition may be such that I may be able to accept it. I assure you that, no matter what you may know or think of my character, I should be very pleased to dodge a painful issue. All I want is—my pound of flesh, Mr. Sand." The man smiled, almost pathetically. "You see," he added, "I have a reputation to sustain in Wall Street. Now let me hear what you have to propose."

"I ask for thirty days' grace," said Philip, "and for an extension of one month in my charter of the yacht Chame-

leon, which, I have every reason to believe, is your property."

Merton Scragg glanced quickly at the younger man, but he betrayed nothing of the effect the remark may have had upon him. When he spoke his tone was as icily severe and quite as businesslike as ever.

"There is nothing to warrant your reason or belief that I am the owner of the Chameleon," he stated. "I am, however, a personal friend of her owner, Mr. Harding—Mr. Frederick Harding, to whom, I believe, you are indebted for your rescue. But for my acquaintance with Mr. Harding I should find it rather difficult to understand what you are talking about. A chameleon, I believe, is a lizard that changes color with circumstances. There are human chameleons, Mr. Sand," he added, with the ghost of a smile.

Philip hardly heard the sarcasm. He was thinking over that matter of the yacht's ownership. He began to see light. Verina's father, he remembered, was "under obligation" to Mr. Scragg. Harding was probably the owner, but only in name.

The Chameleon, and perhaps all of Harding's worldly goods, were mortgaged to Merton Scragg. The skinflint admitted an acquaintance. The fact that Verina had been a "guest" of Scragg did not necessarily mean that the Wall Street *Shylock* had ever been the host in bodily presence. Yes, it was Verina's way of expressing a bitter truth, and—Miss Sharpe had uttered her warning, "*Verina!*"

"Why don't you marry the girl?" was Scragg's way of breaking the stillness that had fallen in the skinflint's office.

For a moment the silence seemed intensified. Philip could hardly believe his ears. What had the man just said?

"Why don't I marry the girl?" he echoed. "Marry—what girl?"

For a moment the disloyal thought came to him that Verina had—perhaps out of sheer desperation and the desire to save him—broken her promise.

"Harding's daughter," said Scragg, looking at him keenly. "She has plenty of money. To marry her would seem poetic justice after the romance of the island. There is some poetry in my life,

Mr. Sand. Also, it would be a solution of your difficulties."

"I have no intention of making use of any woman's love, or any woman's money, as a way out of my obligations," said Philip coldly. "How did you know—of all this?"

Merton Scragg picked up an afternoon newspaper. In bold head-lines on the front page Philip saw the words:

REVUELAN—FOUNDERED— SURVIVORS!

"Pearce has leaked—as usual," was Philip's inward reflection. "Well?" he said to Scragg.

For a moment *Shylock* regarded the younger man searchingly.

"The world expects it, of course," said he incisively. "Why not?"

"Mr. Scragg," said Philip loftily, "I have nothing to say on the subject, except what I have already said, that I cannot consider taking the advantage offered me."

"Does the girl fancy you?" inquired Scragg bluntly—almost coarsely.

"That," said Philip sharply, "is none of your business; and I shall trouble you to keep the matter off your mercenary tongue."

Scragg merely smiled. "Very well," said he, "you will not blame me if I demand a pound of flesh from your own resources when you so carelessly flout what Providence offers you. What was your proposition?"

"My proposition," said Philip, "entails a revisal of that story." He indicated the newspaper article, and proceeded to tell the tale of the wreck, the landing, the treasure, and all that followed.

Scragg listened with an impassive face; although once, when Philip spoke of the retreat from the golden hut, his eyes brightened and he looked at Sand.

"You gave up a fabulous treasure for the sake of—a woman?" he queried curiously.

Philip ignored the remark and continued his tale. "The treasure," he concluded, "lies in that channel. I could almost mark off the spot on a chart. All I need is thirty days, the yacht, and a diver or two."

"I see," said Scragg finally. "You do not wish to die, Mr. Sand."

For the life of him, Philip could not make out whether the man was uttering a sarcasm or not. The financier's face was immobile. Only his eyes glowed with a peculiar flame.

"I do not," confessed Philip; "not because I am afraid to die, although I would prefer that I could die naturally. But life has taken a new meaning from circumstances. Will you grant my request?"

Merton Scragg tapped on the table with his fingers and looked keenly through the window at the tops of the city's buildings. Presently he said:

"I will be frank with you, Mr. Sand. I put no faith in treasure schemes. I have never heard of a treasure expedition which found treasure, except in cheap literature. Also, I cannot give you the yacht. You had better see Mr. Frederick Harding on that point.

"If he consents, then—I will consider the matter. In fact, you have placed me in such a position that I dare not withhold my consent. I feared that it would come to this. You—"

"One moment, Mr. Scragg," protested Philip. "I will not listen to any such talk. I have not come to beg. If your common sense—if your decency does not urge you to see the wisdom of my course, then I can leave this office now, and the rest—remains with me."

"Then go," said Scragg coolly. "You should not have come to me. It is none of my business; but you have until noon to-morrow. You can do as you please, because I have no power over you, thanks to myself.

"You can obtain the yacht and sail in defiance of me and what is due me. But I am loath to be responsible for your death—directly responsible, when it is in my power to present you with your life at a cost of twenty thousand dollars to myself. I have worked hard, Mr. Sand, for every penny I have.

"I value my rights. They are all a man has in a world that cannot, or will not, live without money battle." He stopped abruptly. Presently he waved his hand.

"Go now, young man. You have until noon to-morrow. But before you do any-

thing rash—call me on the telephone. It might be that I may yet agree to be robbed."

CHAPTER XIX.

The Debt Is Paid.

PHILIP awoke next morning with a headache. Strictly speaking, he did not awake. He merely opened his eyes, looked at his watch, and decided that the day had sufficiently advanced for him to get up and run the last lap of human affairs.

He had not slept. His mind had traveled down the oiled groove of the line of least resistance—the descent of which is so easy, and so uncontrollable once the mind has been launched upon it.

And it was so easy. The solution of the difficulty was so broad and simple and inviting, and the point of honor involved so delicate, so thin, so imperceptible to all but the finer sort of soul.

All night he had dreamed of Merton Scragg's own words—as if *Shylock* were the tempting devil himself:

"You can do as you please, because I have no power over you, thanks to myself. You can obtain the yacht and sail in defiance of me and what is due me."

It was a strong temptation—just to take French leave for thirty days, regain the treasure, pay Scragg his twenty thousand dollars, plus a liberal interest; and probably in the end the skinflint would be better pleased. At present Scragg only feared for his money—his investment.

And that was just where the blood of old Philander Sand arose in rebellion. The house of Sand had made its quondam fortune by methods unquestionable. The name of Philander Sand on paper made that paper as a bond.

The pride of Sand arose in arms against any subterfuge in the payment of a note fallen due. True, it was for everybody's best interest that thirty days' grace should be granted. But the holder of that figurative note wanted his money, and the principle of Philander Sand whispered in Philip's heart-blood:

"You backed the note, my son. You must pay the fiddler."

He dressed—wearily. His eyelids seemed to be filled with grittiness. His

lips were sticky, as if he had been drinking sweet wines the night before. His temples were hot and his senses were strangely dulled.

He could think no more. He cared no more. He was just sorry—sorry for himself, sorry that he had ever visited Merton Scragg, sorry for Verina, but too tired of mental debating to feel any great pang.

To-day was—the day of execution. This was the three hundred and sixty-fifth day. At noon the matter must be settled for good and all. There was no doubt in his mind that it *would* be settled—one way or another. If it was not settled one way, it would be settled—the other way.

He looked at his watch. It was eight o'clock. The watch was ticking with monotonous regularity. So many ticks, and it would be nine—ten—eleven—*noon!* Then it would be all over and—the watch would still be ticking, whether the little timekeeper in his own breast was still or not.

He had three hopes left, and surely one of them would save the situation. Scragg might relent of his own volition—Philip was determined that he should not again apply for extension. Verina might devise some scheme, even if he himself did not accept her money as a thirty days' loan—his mind revolted even at that. And the third chance was the one which is ever present in the most precarious of situations—the something which may turn up.

One queer idea came into his head. It did not seem queer at first—indeed, it seemed perfectly feasible and sensible. He might go to some acquaintance—and he had a few who were moneyed men—and tell him the story of the treasure, borrowing twenty thousand dollars, plus interest, on the enterprise, which would see the gold raised and converted into cash. But who would believe his tale of the mortgage on his life, even if he told it? And he felt that he had no right to reveal that which was Merton Scragg's secret as well as his own.

Merton Scragg had served him while serving himself. It would be dishonorable to tell of the transaction just because he himself was sorry for his side of the bargain.

And if he did not reveal the reason for

haste, it was hardly likely that in a few hours he could convince even an intimate acquaintance that the treasure story was true and get twenty thousand dollars on its vague promise.

When he was ready for the street Philip paused a moment to plan his actions. First, he must see Verina and tell her of his interview with Merton Scragg. Then he must see Verina's father and ask him for the loan of his yacht. If he got it, he must then telephone Merton Scragg and— Perhaps the miser would agree.

But Scragg would probably yield. He had *said* that he would be loath to be responsible for Philip's death. He had *said* that he might agree to be robbed. Philip's pride was struggling within him. He was questioning his right to place Scragg in the position of "permitting himself to be robbed"—and that was how Scragg felt about it. The only other course was to fulfil his bargain and—before noon.

"Anyhow, I have four hours," said Philip to himself in the glass. He looked a little pale, but far from being a suitable subject for an undertaker. "I will see Verina. I owe it to her, and I promised."

The truth that was knocking at his heart was this:

"I am a drowning man. I love life. I am weak. If she offers me a straw, though I may not clutch at it, I would like to feel that it is within my reach."

When he arrived at the house in the Bronx he was a little disappointed that Verina did not at once see him. The housekeeper, an elderly woman with an aggrieved face, said that she was dressing, adding the gratuitous remark that it was still very early in the day.

Philip was hurt. There were some things about Verina he could not understand. Was she so selfish that she could not appreciate how precious every minute of that forenoon must be to Philip, if not to her? Was it possible that her mentality was of that sort which moves around only one thing at one time, the kind that weeps at the tragedy and forgets at the curtain?

She kept him fully half an hour. Then she came into the room with her hand outstretched in a formal welcome.

"I pray you will accept my apology

for this untimely call," said Philip, with just a tinge of reproach and bitterness.

"I had not expected you so early," she said coolly. "Well, what did Mr. Scragg say?"

Her tone was so cool and indifferent that Philip felt wounded to his very soul.

"Are you—are you really interested to know?" he asked laboriously.

"Philip," she said, with a smile, "you are a very foolish boy. Perhaps you will soon know just how much interested I am and have been in your behalf."

"You have not spoken to your father or to Merton Scragg?"

"To Mr. Scragg—no. I promised you I would not. When my father came to dinner last night I said I wished to have a long talk with him in the study. I told him."

"And—"

"He is at home to-day, and I think it would be better if you and he talked it over together. He is very sympathetic, Philip."

"I am glad of that," said Philip dazedly. "I need some help—from a man. I would like to talk to him."

"But what of Scragg?"

"Scragg? I am afraid the man is impossible. There is not a grain of sentiment in his composition. I made matters worse by going to him. He treated me as if I were a beggar. I will admit that he left the matter open for consideration; but his decision, even at its favorable best, will be a hard nut for me to swallow. He told me that your father, Verina, owned the Chameleon, and that— By the way, you told me Merton Scragg owned it."

"My father owns it," said Verina simply.

There came a sound of footsteps creaking on an old wooden staircase over the hall. The door of the drawing-room presently opened and Merton Scragg stood in the portal.

"Philip," said Verina tremulously, "this is my father. Do you see now how good God has been to us?"

Philip sat down on a chair and stared at the figure in the doorway.

"Mr. Scragg," said he, although the face of the man was cast in a softer, more human mold than that of the tiger of Wall Street. He might have been Scragg's twin brother.

"No, Mr. Sand," said the old man gently, "my name is Frederick Harding—here!"

It took a few seconds for the last word to sink into Philip's dazed intelligence. Then it all came back to him in a vivid flashlight panorama. Merton Scragg was Frederick Harding. Frederick Harding was Merton Scragg. Yet the two men were as different as cheese and chocolate.

There was some one kneeling by Philip's side. A little warm hand was trembling in his and a little voice was whispering:

"Philip—Philip. It's all right. Everything's all right. Don't you understand?"

Philip did—partly. But he could say nothing. He was trying to identify the white-haired, thin-faced old gentleman in the doorway with the gaunt, iron-jawed *Shylock* of the Wall Street office.

"Philip Sand," said Frederick Harding. "This is my house, and when a guest is introduced to his host I believe custom requires that he stand up, even if he does not shake hands. Shake hands, my boy."

Philip got up. He was conscious that he was being led forward by some one who held his left hand. His right hand he extended mechanically, still with his eyes fixed on the kind eyes of Verina's father.

"Listen to me, young man," said Harding in a paternal way. "You needn't think your wits have deserted you. You are not seeing ghosts. I am Merton Scragg, right enough, but not here. I am taking a holiday to-day—the first I have taken in years, barring Sundays.

"You are one of the few men who know my secret. Down there"—he frowned—"I am what I am—a man of business, fighting for the peace and happiness which I keep locked up here. Up here I am Frederick Harding—Merton Scragg is the only amusement I ever permitted myself in business—and my little girl and I are very happy together."

"A kind of *Jekyll* and *Hyde*?" stammered Philip.

"Not exactly," laughed the old gentleman. "But I think I know what you mean. Everybody is more or less of a *Jekyll* and *Hyde* or a Harding and Scragg. The only difference in my case

is that I am a creature of pronounced views.

"My business is my business, and I am what my business has compelled many a man to be—a hardened fighter, with mercy to none and asking no quarter. My private life is what I think a man's private life should be—something devoid of the miseries of the outside world.

"Sit down, my boy," said he, smiling still. "Miss Harding," he added with mock severity, "I did not ask you to sit down beside him."

There was a long pause. The old man was regarding the young people with a sad but happy smile.

"I am very pleased with you two. Philip, my little girl told me last night that she loved you very much. I know that you love her. I knew it yesterday in my—in Mr. Scragg's office. You see, I had been reading the newspapers. Besides that, I heard your story eleven months ago when my little girl was restored to me. And so," he said curiously, "you let the blackguards take away a million in gold for the sake of—a woman?"

Philip started a little. It was as if he was in Scragg's office again, only the Scragg who stood before him was very strangely transformed. Now he understood it all.

"But I owe you twenty thousand dollars," said Philip stupidly.

"No, you don't," said Frederick Harding quietly. "Your debts are paid in full. I did not bargain for your life, my boy. I bargained for your money. All you have in the world is fifty thousand dollars in insurance, and I believe that by your will it belongs to me.

"I have given that will to my daughter, to whom I presume it would naturally be your intention to leave your earthly possessions. You see, young man, I insist upon your marrying my daughter. Propriety demands it."

Philip stared at the old man. Then his eyes slowly filled with tears. He could not utter a word, but the little hand stole back into his and nestled there assuringly. Harding, knowing that which takes the iron out of a man's self-control, went on talking tactfully:

"I admire your pride, Philip. I ad-

mire still more your manhood and your sense of honor. I could have found it in my heart to tell you everything in the office yesterday when you told me to keep the matter of your love-affair off my mercenary tongue. My heart was made happy right there. The man who could resist a beautiful woman and her money when his life was at stake is—the kind of man I would like to see my little girl's husband.

"The yacht, by the way, is Mr. Harding's; and, as you have his permission to use it, perhaps you might go treasure-hunting around that island. You can't have too much money in this world, my boy; but nobody knows better than you that it isn't everything. Verina tells me that she would like to go back and get the breadfruit out of the fire."

For a moment Philip was at a loss to interpret this queer speech, but suddenly it dawned upon him. The yacht was his. *Shylock* was satisfied. His life was his. Verina was his. Health was his. Now he was to go treasure-hunting again with Verina to help him find it, with Verina to help him roast breadfruit on that particular hilltop.

He held out his hand in silence. He was too happy to utter a word. Through a haze he saw *Shylock* with an amused, contented smile on his rugged face, and heard his voice say:

"Now I must get down-town. All play and no work makes a fool of Jack."

Ten minutes later Merton Scragg was traveling down-town in the street-car line which he owned. The conductor, taking the fares, passed by the man, who picked up a castaway newspaper and became immersed in it.

Back in the old Colonial house, which was hedged in by new tenements, Philip Sand was staring before him. There was a woman on her knees before him, and her face was buried in his hands. Presently an old grandfather's clock in some other part of the house began to dole out the long-drawn strokes of the noon-hour. Philip Sand started.

"Verina!" he exclaimed.

"Philip," she whispered, and her arms stole up around his shoulders. "Kiss me—but don't say anything for a little while."

(The end.)

A Woman at the Key.

BY EVA M. RICHARDS.

WE find women in every phase of commercial life nowadays—even in railroading. But Miss Richards, who spent some time as operating express-agent, and in other capacities, in a little way-station out West, advises women to keep out of that part of the game, and she gives some pretty good reasons why. When she started in she was satisfied to be a mere cog in a great system, but she made herself more useful than ornamental, and soon became a Lady Pooh-Bah in her little sphere.

Thrilling Experiences of a Young Woman Who Did Most Everything, from Feeding a Wrecked Crew to Chasing Boes Down the Dusty Pike.

IT had always been my wish to be part of the great wheel of business. I had studied telegraphy a short time, and had had a short experience in station work, but when I was offered the position of station-agent and telegraph-operator at a small station on the Chicago and North-Western Railway, I promptly accepted.

No queen on her throne was ever happier than I when I first wrote my name as agent for the company. And I pity him who has never felt the exhilaration of responsibility.

Doing business over one's own signature is quite a different matter from doing it over another's. But strength and courage are generally near us when we are in need of them, and they have never failed me.

Except the clerical work in the general offices there is no branch of railroad work for which a woman is physically fitted. The reasons are numerous. The long, uncertain hours, exposure to climatic changes, strain on the nervous system, and the necessity of always being ready to stand one's ground in the face of unexpected and most difficult circumstances.



SHE ARRIVED AT
THE STATION AT
LEAST FIVE HOURS
BEFORE TRAIN-
TIME.

"Ready for an emergency," "Prepared for the unexpected," should be branded on every would-be railway-employee. Hardly a day passes that does not bring some unthought-of proposition, when one acts without hesitation.

The station in which I was installed as agent and operator was in a small town, but being the shipping-point for a rich stock and agricultural district it was a busy point, and I soon became well acquainted.

Multitudinous Duties.

When it was possible, I hired a man or boy to attend to the outside work, but more often this was impossible. Then I surely did the work of a man.

In the years I associated with railway men they treated me with the greatest respect, and I can truly say of them that they are a class of men with big hearts, and always ready to do a kindness.

I was also postmistress and express-agent, so had my fingers on the keys of the town's government, express, and railway business. At seven in the morning I was due at the office, when I sent my first report to the division train-despatcher; and from then until the last train at night, no-matter how late, my work was before me.

An agent of such a station cannot be the steel figure of the city. He must not only be polite, but neighborly with the townspeople and those from the country. Every newcomer must be gracefully welcomed and every old one honored.

The admonition of the photographer to "look pleasant" is always needed by the agent. One old lady, who took the train quite frequently at this station, often asked me to make a cup of tea for her. She usually arrived at the station at least five hours before train-time; and, when she was not drinking my tea and eating crackers, she was knitting socks and smoking an extremely odoriferous corn-cob pipe.

Private Secretary to Farmers.

After the telephones were installed throughout the country, I acted as private secretary to most every shipper in that country. I was often called upon to write

an order for harness or similar articles for a farmer. These orders usually came just about train-time. The shippers appreciated this assistance because there was no charge. They appreciated my efforts for them, though they never deluged me with storms of gratitude.

Of all the mail which I handled, I think the following "forward," as the writer called it, merits a place in English literature. I was asked by the writer to "look it over," hence my knowledge of the contents:

My der gurl this fur all rite seems
a age sence i see yer be back sun as pus-
sible yer own lover Al rite more nex
time so gud-by little blue ies and pink
teth—you no what that lin is Al agin.

I presume the line stood for an affectionate demonstration of his ardent affections, and "Al agin" meant that he was still Al and not an alligator.

Shipping a first consignment has been to some people their Waterloo. I distinctly remember a horse that was brought to the station for shipment. The consigner had never shipped an ounce of freight in his life, and was duly excited about the performance.

Milk for the Crew.

The box car was not right in front of the stock-chute, so I told him to push it there with the aid of the pinch-bar. This he refused to do, and insisted upon loading from the depot. He improvised a bridge by laying boards from the platform to the car, then led the horse up the steps into the car, I going before, coaxing the animal with an ear of corn.

It has often been necessary for me to stand on boxes in order to seal cars, and I have moved empty cars with the aid of the pinch-bar. There is little work about a station that I have not done, even to dodging hoboes.

One evening the freight was coming down the line, running on a smooth stretch of track, when, without any apparent cause, three of the loaded cars were off the track, lying on their sides. These cars were loaded with shelled corn, so the spill may be easily pictured.

The conductor and brakemen were in the "lookout" at the time, and graphic-



HIS BARK AND GROWL COMPENSATED FOR HIS LACK OF SIZE.

ally told me they found themselves at the other end of the caboose on their faces, but expected to be in paradise.

The crew came to the station to report, and asked if I could furnish them supper. My sister said we could; but, when she went to the ice-chest to see if there was sufficient milk and cream, she found the same condition that confronted Mother Hubbard.

A 1 x 2 Dog.

Seeing a herd of cows grazing by the roadside, I called a boy to get us the necessary supply. He did his best for us; but found it difficult, as it was fly-time, and I think he did most of the milking walking about the lane with the cows. After supper the crew went back to work, and I sat at my desk, taking and sending orders until the next day. My sister kept me company, occupying an improvised couch of empty egg-cases.

All the time I was in this office I had a most ardent admirer and protector in Jack, my one-by-two dog. His bark and growl compensated for his lack of size, and he frightened more than one Weary Willie by attaching himself to a trouser-leg.

One Willie came into the office and, with a savage cast of face, said: "That dog bit me, and now I will have cholera-morbus rabies."

Jack was very fond of the trains and crews, much to my discomfort, until an engineer sent a great cloud of steam at him and a conductor pulled his tail.

From that time, if he was lying on the platform and heard a whistle five miles away, he would run for his life into the office. Many is the way-bill he has torn into bits for me, one in particular, which covered a shipment from La Crosse. Going into the office, I found the little fellow sitting in the ticket-window, having a fine time throwing bits of pink paper about. Not an inch of the bill was left.

I wrote to the agent at La Crosse, asking for a duplicate, and when I received it, across its face in bold letters was written: "Either tie up your dog or give him to a circus."

One Lantern—Two Globes.

The passing of a circus through our town at two in the morning from Platteville to Cedar Rapids, Iowa, gave me my first experience in blocking trains. My station was not a regular train-order

office, consequently I had no semaphores or other devices with which to give signals, save one lantern and two globes, one red and one white. But these did the work satisfactorily.

Very few persons realize the responsibility that is connected with the operation of trains. They enjoy the excellence of the service from the ballast road-bed to the electric-lighted padded berth. They frequently notice the whistling of the engine and the stopping of the train, but

enough to express the tortures through which I passed when I received my first train order. Had it not been for the kindness of that conductor, I too might have piped my swan song. I have the original yet, which reads:

BARABOO—To C. & E., No. 125 N.:

No. One hundred twenty-five (125), Murphey, can have until eleven forty, 11:40 A.M., to go to Ipswich, against No. one hundred twenty (120), Reales. No. 120 gets this at Ipswich, 12.

J. W. L.



THERE NEVER WAS A COUNTY FAIR WITHOUT THEM.

what this means they do not know. But the men at the telegraph key and the throttle know.

A small sheet of yellow tissue paper is an insignificant looking article, but upon it depends the safety of lives as they span rivers, cross prairies, and crawl up mountainsides. This yellow sheet contains the train orders which govern the movement of a train, and which is the young operator's test of ability and courage—and often his swan song.

A rule appears simple until we attempt to harness and put it into use. So it is with learning about train orders and the delivery of such.

I have never found words strong

After the delivery of that order I felt that I would succumb to nervous prostration.

When McKinley Died.

I hold copies of three messages which I received and which were but three of thousands of the same nature received on the same dates. They are as follows:

BARABOO, 17.

TO ALL AGENTS:

Thursday, Sept. 19, 1901, has been appointed a day of mourning and prayer. You will please issue such instructions to those under your jurisdiction as will result in as complete cessation from labor as practical.

Switching crews and station help will be reduced to a man, and every employee of this company is to be given an opportunity to comply with the proclamation of the President.

(Sig.)

R. A. C.

BARABOO, 18.

TO ALL AGENTS:

Thursday, September 19, having been appointed memorial day account of death of President McKinley, we will abandon all way-freights and other freights as much as possible, except for the handling of perishable freight and live stock. Notify all concerned.

J. W. L.

BARABOO, 19.

TO ALL AGENTS:

All trains and engines of this company will come to a full stop at 2.30 P.M. to-day and will not resume motion until 2.35 P.M., or five minutes, as a mark of respect to the dead president. This is to be done regardless of where the train may be. Operators will please leave the wires silent during these five minutes.

J. W. L.

During these five minutes my wires were silent, and looking up the track we could see the motionless passenger-train which had just left the station. I do not remember seeing a smile on the face of a railroad man during that sad week. My Chicago daily paper reached me at eight in the morning, and every morning of that week I read it aloud to the section men and neighbors as they gathered in the depot, and every day we grew sadder and sadder.

Off for a Picnic.

If one has never seen a crowd of people board a train for the county fair, he has missed one of the best bits of human comedy. The crowd gathers from all parts of the country—old men and women, young mothers carrying little bundles of life carefully wrapped in shawls, youthful lovers and their girls on their first trip away from home; the little girl with a rubber cutting her little throat in order to keep her hat on the back of her head; the growing boy with the small felt hat turned up to give a good view of his freckles, and old young men, known as sports, who are regular attendants at every fair.

These old chaps usually wear a bright

tie, a rubber collar large enough for two necks, a stiff hat on the side of the head, and a ring bearing a stone the size of a quarter-of-a-dollar. Their clothes are of goodly proportions and fit the frame as if thrown at it. Their shoes are of a perfect dust color.

These captains of leisure usually carry either a cane or whip. There was never a county fair without them.

When they come straggling from the train at night, it is a different crowd. They are weary, worn, and sometimes sad; they are dirty, crumpled, and forlorn, but they have been to the county fair, seen the big pumpkin and bet on the races.

It's Work We Love.

To one unaccustomed to the clocklike routine of railroad work, the charm which attends it is unknown. But to one who has received a "G. N.," or relief from duty, who tunes his ear to the heavy whistle of an approaching train or the resounding clang of the bell, feels the irresistibility of the charm.

There is nothing more welcome than a delayed train, one for which one has waited hours. The trains on the division on which I was employed were more often late than on time during the winter. Despite the snow-fences which hugged the right-of-way, the snow would persist in filling the numerous cuts, making progress slow, sometimes impossible until the plows and flangers would make their missionary visits.

At such times, the most welcome thing on the face of the earth was the train, and I held its engine in deep esteem, as it came puffing in, its light piercing the gloaming, its long black plume of smoke waving in the keen air, its back blanketed with snow and its flanks fringed with icicles.

When it stopped it seemed to breathe heavily and then to sigh. Then with renewed strength, with its drivers silhouetted in the red light of the open furnace, it snorted and moved on.

Then I banked my fire for the night, reported the train, received "G. N.," cut out the wire, locked the door and hurried home, tired and happy, until the dawn of another day.



THE SONG OF THE WIRES.

BY OTIS M. SISSON.

Written for "The Railroad Man's Magazine."

THERE'S a message of death on the wires to-
night,
For they ceaselessly throb and moan;
For they ceaselessly mourn like a soul that is
lost,
In a quavering, minor tone.

Far off in the darkness I hear it come,
Faint and soft it sounds;
Nearer it speeds with the pulsing beat
Of a wrought heart's leaps and bounds.

It comes like a shriek from the depths of space,
A quivering, anguished cry—
Oh! surely some soul is forever lost,
And forever alone must fly.

It goes like the sigh of a parting breeze,
And dies, like a sigh, away;
But to return in the rising gusts
The saddest of sad chords play.

There's a message of death on the wires to-night—
Hark! how they sob and moan;
And a soul somewhere in the farthest space
Is winging its way—alone.

DUGAN'S PAL GOES DIPPY.

BY AUGUSTUS WITTFELD.

("E. Florence.")

The Book-Agent Tries To Get in a Few Words During the Recital of Archie's Love-Affair.



Y friend," said the book-agent to Dugan, "I would like to interest you in a work that should be in the hands of every thinker. A work that will raise your standard of efficiency, no matter what your calling may be."

"Say, sport," replied Dugan, "no doubt you have sincere convictions as to the value of your indispensable work, for the brooklike flow of your language would lead me to infer that you have, at least, mastered your circular letter of instructions; but when you speak of standard of efficiency, I would like to inform you that old man Hinchman looks out for that; and the man that can't keep the gage prognosticating a plethora of steam gets ample time for the rigors of social requirement."

"True," replied the book-agent; "but do you never aspire for a more exalted position than the one you are now filling? Ambition should be implanted in every human breast, and every man should endeavor to prepare himself for advancement."

"Right you are," assented Dugan; "but you don't for the infinitesimal subdivision of the unit of time imagine that I don't know anything but coal-heaving?"

"Why, man, it's not knowledge, but opportunity, that I am laying for. It's true I'm feeding fuel to a mogul now, but I'm ready to tackle any job along the line—clean up to the presidency of the road."

"Are there never times when you wish to refresh your memory on matters of a

technical nature?" inquired the book-agent. "The composition of the coal you handle, the expansive power of steam, the mechanical construction of the steam-gage, or even the principle of the balance escapement of your watch, are all subjects of absorbing interest."

"Speaking of watches," said Dugan, "reminds me of Archie Bruxton; and so long as you show a predilection for telling me all you know, I am going to relate this yarn to you. It may not be of material benefit to you, but its recital may, in a sense, compensate you for the loss of an order."

"Archie gravitated to railroading by divine instinct back in the eighties, at which time I was swinging the scoop on the Pennsy. He was an innocent-looking chap, with a caffy-o-lay complexion and an unalloyed confidence in mankind."

"He was unsoiled by contact with the world, and was preeminently a child of nature."

"I cottoned to him at the start, on account of his unsophisticatedness, and introduced him to the Medusa who ran the Waldorf where I kept my steamer-trunk."

"By reference to Medusa in this sublime work," interrupted the book-agent, "you will learn that the name was applied to Mary, Queen of Scots—'The Gentle Medusa.'"

"Yes," commented Dugan; "but this Medusa was 'Queen of the Micks.' Likewise, not gentle. Well, to continue—one evening Archie went out for a stroll, and when he returned he proudly exhibited a pawn-ticket for a watch, which he said he had bought from a stranded railroad engineer."

"I uttered mental maledictions when he told me the story, which is as old as the hills, and cursed myself for letting him loose in the night air without a nurse. Instinctively, I knew that some one had handed him a prize specimen of the *citrus vulgaris*.

"He said he thought that a watch which was good enough for a railroad engineer must be a pretty good article, at timekeeping, and that's just what the party of the second part expected him to think; but you couldn't expect Archie to be wise to the wiles of the pawnbroker's runner."

"Are you aware of the origin of the pawnbroker's insignia?" again interrupted the book-agent. "By reference to the proper subject in this mine of information, you will learn that the three balls are the arms of the Medici family, and refer to the exploit of Averardo de' Medici, a commander under Charlemagne, who slew the giant Mugello, whose mace was fitted with three iron balls."

"Sport," replied Dugan, "you may be long on medieval history, but the accepted interpretation of the sign of the three brass balls is that it was the emblem of the first pawnbroker—he who traveled in the wake of the Crusaders, advancing loans on their watches and scarf-pins, and whose motto was 'In hock signo vinces.'"

The book-agent attempted to dispute this explanation of the erudite fireman, but Dugan threw the gab-throttle over and shot ahead.

"Now, see here, pardner," he cautioned, "if you're going to throw a switch every few minutes, and run this fiction limited onto a siding, we'll never finish on schedule."

"Well, to get back on the main line, Archie redeemed the watch the next day by separating himself from eight forty. He showed it to me, that night, in the privacy of our boudoir."

It was one of those Swiss movement affairs, reposing in a gold-filled round-house, highly ornamented with bizarre engravings. As I sprung open the lid, I was surprised to see the picture of a handsome heroine, gazing soulfully at me.

"Say, boy," I asked, "who's your lady friend?"

"Archie blushed like a girl caught in the act of concealing her age."

"The picture was in the watch when I got it," he replied.

"She's a beauty, all right," I commented. "I wonder who she is?"

"Wish I knew," said Archie soulfully.

"See here, kid," I cautioned, "don't you go getting spongy on a fictitious female. You are too young to indulge in affinities or soul-mates."

"The article on affinities in this magnificent work," interrupted the book-agent, "abound in reference to the celebrated affinities of history—"

"Hold on," protested Dugan; "I ain't interested. I ain't no blooming monastic Abélard nor no pugilistic Paris. When a man does his love-making in the spotlight, you can bet your sesterces that the divorce court is getting ready for executive session."

"I warned Archie to be careful in diagnosing his symptoms. Told him that the symptoms of love and a predisposition to hepatic disturbance were often confounded. He protested that he was heart whole, but, like the lady, he did protest too much; and I realized that he was squarely hit."

"During the days that followed, I caught him frequently gazing at the photo of his innamorata as though it was a twenty-dollar gold piece."

"One day he came home and told me that he had run across the buccaneer who had sold him the ticket. This time he happened to be a stranded sailor, who had smuggled in some diamonds which he wanted to sell."

"Archie chided him for leaving the honorable calling of railroad engineer and taking up with dissolute sailors. When the fellow professed ignorance of the railroad business, Archie showed him the watch and asked him whether he didn't remember selling him the ticket for it."

"Then, suddenly, this Jekyll-Hyde character remembered all about the watch incident. When Archie questioned him as to the identity of the woman in the case, he laughed, and explained how the game was worked. Then he examined the watch, and told Archie that it was of a make that had been handled by a mail-order house in Chicago exclusively."

"He suggested that Archie write them, giving the number of the case and also of the works, and possibly they could inform him as to whom it had been sold. Archie thought it was a capital idea.

"I tried to dissuade him from acting recklessly, but I hadn't stopped to consider that the foolish flier always travels on a clear track. Archie was traveling on the matrimonial limited, and he ignored my signals and tore ahead on down grade to destruction.

"He sent off his inquiry, and in due time the answer came that the watch had been sold to one Antoine Picard, at South Bethlehem, Pennsylvania."

"You may not be aware," commented the book-agent, "that the name Bethlehem has been given to upward of one hundred towns and villages. By reference to this *vade mecum* of information, you may—"

"Hold on, sport. Put on the air," cautioned Dugan. "From the way you interfere, one might imagine you was playing talk-back in a football game. When you started to run wild, I was trying to impart the information that Archie got busy and indited an epistle to the Bethlehemite with the Quartier Latin name, and asked him whether he had ever owned the watch.

"He got an answer stating that the watch had been stolen from him about a year back, and offered Archie a reward for its return.

"The answer transported Archie to the haven of happiness, and he squandered some more real money for postage to inform that Gallic Bethlehemite that he would return the watch in return for some definite information about the original of the photo in the case.

"Picard came back with a proposition that Archie take a trip to Bethlehem, meet the original in person, and get his information at close range.

"I realized that there was no use trying to restrain that bally brakeman when the hymeneal hawser was pulling him Bethlehemward.

"The following Sunday, arrayed in his gladsome garments, he journeyed to the burg with a biblical name. I did not see him until Monday night.

"Well, boy," I inquired, 'did you see your divinity?'

"Sure thing," he replied.

"What's her name?" I asked.

"Marie Héloïse Clothilde Jeannette Louise Antoinette Picard," he answered.

"Great Scott!" I ejaculated. 'Isn't that a rather voluminous name for a single female?'

"But she isn't a single female," answered Archie.

"Married, eh?" I commented. 'Well, it serves you right for getting dippy over an unknown.'

"Well, no," replied Archie; 'she's only partly married.'

"See here, boy," I said, 'just loosen up, and let me have some details.'

"It's like this," replied Archie. 'The original of the picture happens to be the sisters of Antoiné. Yes, I said sisters. There's six' of them. When Antoine wanted to put their picture in his watch, he found that he couldn't get six photos into it, so he conceived the brilliant idea of making a composite photograph of the six and carrying that in his chronometer. The result was satisfying to Antoine but untrue to the originals. Dugan, old boy, you ought to see them.'

"No, you don't," I replied. 'You're not going to drag me into a *mésalliance* with any disintegrated portion of that composite chromo.'

"There's two of them married," replied Archie; 'and when I make up my mind which of the remaining four is to be Mrs. Bruxton, I'll give you an invite to the wedding.'

"Well, I got the invite, all right, but it didn't happen to be one of the composite coquettes that landed the susceptible Archie; for, while he was puzzling over the problem of plural possibilities, he succumbed to the wiles of a fat German girl whom it would have been impossible to photograph except with a view camera.

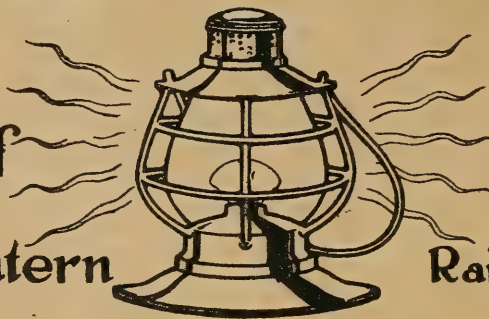
"Say, how are those composite photographs made, pardner?"

"In this superb work which I am offering you," replied the book-agent, 'the article on photography goes into full detail as to the *modus operandi* of composite photography; and, in fact, there is hardly any subject that is not covered. If you will place your name here on the order, the books will be delivered—"

But Dugan had fled.

WHAT'S THE ANSWER ?

By the
Light of
the Lantern



Questions
Answered
for
Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. In future, we shall be compelled to limit its scope to the answering of questions of an informative, technical, or historical nature only.

We receive dozens of queries in regard to the right person to apply to for certain classes of employment. If the writers will pause for a moment to consider, the title of the proper official will readily occur to them, and in any case the information can be obtained by application to the headquarters of the company involved, much more quickly than we can publish it.

If a reader, after following these directions, still finds himself lacking in information, and will write us, giving his full name and postal address, we will try to satisfy him through the mail, but we cannot answer any letter in which it is not made clear that some real difficulty exists.

SOME time ago I had occasion, while handling air on trains from the rear with the tail-pipe, to back an engine with one heavy coach from the depot to the yard. I placed my tail-hose, or "gun," as we say, on the rear end, tried my air and set the brakes, the excess pressure, of course, releasing them.

I gave whistle signal to back up, and we proceeded to the yard, where another engine was standing. I applied the air slowly, until we were about 400 feet away from this engine, but it had no effect to reduce speed, so I threw valve in emergency, letting air out of train-pipe. When the air escaped I could tell it had no force.

We were going about five miles an hour and struck this engine which I mentioned, but fortunately with no damage. This has happened several times lately, and we have a dispute about it.

What caused this to occur? Was it my

fault, the brakes, or the fault of the engineer?—J. W. W., Chicago, Illinois.

Without knowing all of the conditions implied in your interesting query, we could not say positively what the exact cause was, but, judging from the manner in which the application of the brakes was made, the back-up hose was open, or at least partially. This reduced the brake-pipe pressure somewhat, and caused the feed-valve to open wide at the brake-valve, thus supplying the air to the brake-pipe as fast as it was being reduced at the rear.

No doubt the brake had also been applied partially in service, thereby reducing the possibility of obtaining quick action, even if the brake-pipe was wide open. Without having made a partial service application, however, the same difficulty in obtaining the quick ac-

tion would be liable to occur for the reason that the feed-valve would be supplying air to the brake-pipe very rapidly, thus preventing the rapid drop in brake-pipe pressure necessary to obtain quick action, or even a quick service application of the brake. In other words, the condition necessary to produce quick action had probably not been obtained.

WHAT is the average cost of a wood freight-car; also, of a steel car? What is the average thickness of the plates used in the latter?—F. N. P., New Haven, Connecticut.

Wood cars of different types, with steel underframing, may be assumed to cost from \$1,100 to \$1,400. Pressed steel cars are worth about \$2,000. The average thickness of the sheets in all steel cars is one-quarter-inch tank steel. Some of the pressed steel shapes entering into the details of the car are much heavier than this. These parts are pressed out between dies in a hydraulic press.

J. S., Fall River, Massachusetts.—We have intimated many times in this department that we cannot pass on the merits or demerits of any school or institution advertising a course in firing locomotives. This attitude is due principally to the fact that we know nothing about any of them other than the information which may be gained from a perusal of their advertising matter, which you can secure on application, and because we have never known or talked with one of their graduates.

It would appear from the literature mentioned, that, so far as the theoretical knowledge which may be gained is concerned, the courses taught are no doubt of value. We know that many good firemen are woefully weak in this end of it. Furthermore, we know that the time is fast coming, in fact is here, when a man will have to pass a very good examination on the theory of combustion, and many other things heretofore disregarded, before he will be allowed to run an engine.

We do not believe that the actual work of handling the scoop, and the art of keeping the fire in good condition at all times and under diverse conditions, can be learned anywhere except on the footplate. We have no knowledge whatever of the ability of the school you mention to secure positions for its graduates.

They are, of course, in touch with various master mechanics, and keep the latter advised of their available men. The long and short of it would be solely whether the master mechanic, or employing official, would

prefer to take the new men this way, rather than through personal acquaintance with them. Your size and weight indicate that you are physically qualified to perform the work of a fireman, but, as you are under age, on some roads it would be necessary to secure a minor's release before going to work.

WHAT disposition has been made of the locomotive "General," captured in the spring of 1862, from the Georgia State Railroad, at Big Shanty, Georgia, by J. J. Andrews, and some twenty others?—S., East Liverpool, Ohio.

It is on exhibition at the Union Depot, Chattanooga, Tennessee, where it has been for some years as a permanent exhibit.

J. T. J., Columbus, Ohio.—The salaries paid traveling auditors is variable, as, by the way, are all salaries identified with this business for corresponding lines of employment. We know personally of one traveling auditor who receives \$200 per month, but, from our knowledge regarding recompense, we are inclined to the opinion that this is exceptionally high. They do not appear in the official guide in the capacity which that name suggests, but in view of the importance of their work they should properly be so considered.

IF an engine were fired up all ready for a run, could it run on level track for half an hour with but one shovelful of coal after starting?

(2) What railroad has the most track in use under one management in the United States?

(3) Does the Southern Pacific have the longest engines in the United States? I have heard that two of theirs measure over all ninety-two feet.

(4) Which is the hardest to fire, a large or a small engine?—N. M. S., Angel Island, California.

(1) This would depend absolutely on the conditions under which the engine was run. If the fire were built up in good shape, such as it would be before pulling out with a hard fast run, and the cars were omitted, that is, nothing but the light engine considered, it might be possible to run it for half an hour by careful handling.

On the contrary, if we assume your question to mean an engine with a train, the answer is that it wouldn't run very far or very long without intelligent firing and plenty of it, if the train was heavy. It is a very hard drag on a fire to get the swing on a train of eight or ten cars, and without attention it would soon burn down or become so pulled

full of holes that the steaming qualities would be seriously affected.

(2) The Pennsylvania system has the most mileage under one name and management, but for your information, and replying to other queries received this month, we quote the make-up and mileage of what are known as the Harriman lines; the figures implying the miles of road:

Union Pacific	3,337.63
St. Joseph and Grand Island.....	257.85
Oregon Short Line.....	1,454.06
S. P. Co. (Pacific System).....	6,014.58
Sonora Railway	263.45
Sunset Central Lines.....	3,442.49
Mexican and Arizona Lines.....	318.62
Mexican Extensions	527.82
Illinois Central.....	4,594.00
Total.....	20,210.50

In addition, the following are owned jointly:

U. P.—Leavenworth and Topeka....	46.57
U. P.—Miscellaneous.....	31
U. P.—San Pedro, L. A. & S. L. R. R.	1,066.35
S. P.—Sunset and Sunset Western.....	47.64
S. P.—Northwestern Pacific.....	405.76
Total	1,566.63

Grand Total Rail Lines.....21,777.13

Atlantic Steamship Lines.....	4,400.00
Pacific Steamship Lines.....	31,200.00

Total Water Lines.....35,600.00

Grand Total, Rail and Water....57,377.13

The above figures, carefully compiled from latest records, are complete regarding the Harriman lines. They are, of course, the largest number of railroad properties practically under one control, but we think that the Pennsylvania lines, or system, better answers your question.

(3) Eighty-three feet six inches, is the longest total wheel-base of engine and tender of which there is any record. This is on Southern Pacific engine No. 4,000, which was fully described in the December Lantern Department. It is no doubt as long as you mention, that is, from the extreme point of the pilot to the extreme rear portion of the tender, but the official figures are silent on this particular dimension.

(4) More work is naturally required to maintain the fire in proper condition in engines having extensive grate area than in those with small fire-boxes, so far as the actual physical effort is concerned. It has been our experience that more skill is required to fire the small engine properly. The

majority of the big fellows steam so freely that the work becomes merely a question of the endurance available for baling the coal into them. The others have to be humored, and the coal has to go just where the fireman wants it, and in quantities no more than needed.

H. S., St. Louis, Missouri.—The engines of the Western Pacific Railroad, which you mention, burn coal as fuel.

IN what position are the eccentrics on the axle in relation to the crank-pin of a locomotive?

(2) How much steam pressure is there on the slide-valve of a locomotive, and is the pressure on the valve the same as the pressure around it?

(3) What is the difference between a slide-valve, a balance-valve, and a piston-valve, as used on a locomotive?—G. N. S., Friedens, Pennsylvania.

(1) Depends entirely on whether the valve motion of your engine is what is called direct, or indirect. Direct motion engines may be considered as those in which the slide valve is driven by the eccentric and rod without the interposition of a rocker arm.

A rocker arm, which is a pivoted device, naturally reverses the motion imparted by the eccentric rod and necessitates a different arrangement of the eccentrics on the shaft. The large majority of locomotives have the indirect motion, which cannot be avoided, owing to the height of the valve on its face above the center line of motion, or the line drawn through the centers of all axles.

In such cases the forward motion eccentric is placed with its throw above the crank-pin, when the latter is on the center, or "following" the crank-pin, in shop parlance. The back-motion eccentric, with the crank-pin in the position above defined, would be in a corresponding position below the crank-pin.

If the slide or piston-valve had no lap or had no lead, the center of the eccentric throw would be set at right angles with the crank-pin, the forward at right angle above and the back at right angle below. All valves, however, have some outside lap, and as a rule, some lead, therefore it becomes necessary to advance the eccentric toward the pin a distance equal to the sum of the lap and the lead.

A handy rule for this, in the instance of the locomotive, would set the center of the throw of the forward-motion eccentric at the third spoke in the driving wheel, above the crank; that is, reckoning from the posi-

tion of the wheel with the crank-pin on the center. Logically, therefore, the center of the throw of the back-motion eccentric would be at the third spoke below the crank-pin.

(2) If the packing strips are tight, there is practically no pressure on the top of a balanced slide-valve, with which the large majority of locomotives are equipped, except from what steam may leak over the packing strips, due to poor fit or wear, and this leakage is provided for through a small hole in the center of the valve, which allows whatever leakage may ensue to pass into the exhaust cavity of the valve and thence into the stack.

The pressure in the steam-chest, around the slide-valve, is generally reckoned at 85 per cent of boiler pressure, it being computed that 15 per cent is lost between the throttle-valve and steam-chest through wire-drawing, radiation, and condensation.

(3) A balanced slide-valve is protected with packing strips, or rings, arranged to make a steam-tight joint on a true plate above the valve. This relieves it of tremendous pressure, to which it would be subjected, secures corresponding ease of movement, and not least, a minimum of wear to the seat on which the valve travels.

A plain slide-valve, of which few examples remain in locomotive design of the present day, has no packing strips or rings, and has equal steam pressure on sides and top. The objections to this type, and which resulted in its retirement, were difficulty in securing proper lubrication, in handling the reverse lever under steam, and the rapid wear of both valve and seat.

A piston-valve, of which many examples are now standard in this country, is simply, as its name implies, two pistons representing the edges of the slide-valve, and connected by a rod, this rod forming the valve-stem. When outside admission, the space between the two pistons becomes the exhaust cavity; when inside admission, the space between the pistons contains the live steam for admission to the cylinders.

In either instance the valve is nicely balanced, this latter being the advantage claimed for it. Its weak point is in the liability to breakage of the packing rings which encircle the pistons to make them steam tight in the valve chamber. Although so many piston-valves are now in use, it can scarcely be claimed that they have yet passed from the experimental stage.

It needs but a reference to the reports issued by the various locomotive building concerns to show that many new engines are still specified to be built with the regular balanced slide-valve. Undoubtedly skepti-

cism still prevails to a marked degree in regard to the utility of the much-exploited piston-valve.

G. F. B., Shreveport, Louisiana.—The question of the first automatic cylinder lubricator for locomotive use is somewhat obscure, but its invention is generally credited to Nicholas Siebert, a California engineer, who in 1869 applied his idea to engines in service and with considerable success.

The first "up drop" lubricator was invented in 1873 by John Gates, of Portland, Oregon. All succeeding lubricators, up to and including the elaborate affairs of the present day, are but developments or modifications of Gates's idea. We have never heard, or can find no record of the invention of the lubricator assigned as you mention in your letter.

B. M. B., Grand Rapids, Michigan.—The best medium through which to secure the information requested would be some extensive dealer in scientific instruments. You will find many such in all cities of prominence, and, whether the article is carried by him or not, he will no doubt be pleased to place you in touch with it and furnish full information regarding its care and maintenance.

DOES it require a great deal of brain work to run a locomotive?

(2) What is the average pay of an engineer and fireman?

(3) How long must a man fire before he can become an engineer?

(4) Does the fireman merely watch the engineer to learn, or must he get information from the railway school?

(5) Does a man have to wipe engines before he goes on the road?

(6) How old must the average young man be to physically handle the work of a fireman?—T. A. P., Cleveland, Ohio.

(1) Yes, lots of it, and many other requisites. Read "The Man Who Pulls the Freight," in the October, 1908, number of the RAILROAD MAN'S MAGAZINE, and judge for yourself. This is simply a plain tale of an average freight run, under average conditions.

(2) Engineers' pay averages \$3.50 to \$4.00 per day; firemen, \$2.00 to \$2.50 per day.

(3) Usually four or five years.

(4) He picks it up on the footplate through observation of from two to a dozen different men for whom he may fire, regularly, if it is in him, and the final examination will readily decide this. The railway

school might help in passing a better final examination. See reply to "J. S., on page 51, this issue.

(5) No, there is no defined rule about this.

(6) Twenty-one years is about right.

C. W. A., Hutchinson, Kansas.—There is no difference whatever in the action of a crank and an eccentric. So far as results go, the names imply the same results. If you will submit us a sketch embodying the details of your problem, or the work you want to do, we will be pleased to advise definitely the most economical and efficient arrangement which you should use.

PLEASE tell me whether or not an engine is considered as a train.—C. L. S., Norfolk, Virginia.

An engine running alone, if displaying signals, or carrying markers, is always regarded as a train. This does not apply to engines running in yards or within yard limits.

RULE No. 12 says: "Trains will not leave the following stations without train order or clearance card: 'A,' 'S,' and 'Z.'" Conductor, engine 1697, receives an order at "A" to run extra to "S," and accept caution card on work extras, 18, 28 and 37, working between "B" and "D." Operator at "A" gives conductor a caution card. The conductor refuses a clearance card, saying he does not need one, as he has his orders and a caution card. Who is right, the operator or the conductor?—E. V. P., Schenectady, New York.

As you have quoted the rule which makes a train order or a clearance equally effective, and conductor had orders, it would appear that the clearance card was not necessary. There is no reason, however, why he should refuse to accept a card, except on the technicality which the rule implies.

WHY is the high-pressure cylinder on a compound locomotive so called, when it is smaller than the low-pressure cylinder?

(2) Where will I get a book explaining valve setting and going into machinery in detail?—G. F. H., Maricopa, California.

(1) Because it first receives the steam from the boiler and uses it at that pressure, minus 15 per cent due to condensation, radiation, etc., before exhausting it into the larger cylinder. This latter is termed the low-pressure cylinder, because it is supplied solely by the exhaust steam from the high-pressure cylinder, and the reason that it is

made of much larger diameter than the other is because the steam which it receives is much reduced in pressure, and in order to partially offset this loss it is spread over a greater piston area.

(2) Apply to Locomotive Engineering Publishing Company, New York City, New York, or to *Railroad Age-Gazette*, New York or Chicago.

F. W. F., Chicago, Illinois.—A second man is always carried on electric locomotives, practically in the same capacity as was a fireman when these roads were formerly operated by steam. The proposition was made to dispense with the second man in the interests of economy, but the matter was taken up by the labor organizations and two men were conceded with scarcely an argument against it.

The duty of the second man is to assist the operator where required; to observe and call the signals, and anything of a similar nature which would naturally be suggested. Electric railroading, on the largest scale, is at present carried on by the New York Central and Hudson River Railroad, out of New York City, and by the New York, New Haven and Hartford Railroad, between New York and Stamford, Connecticut, about thirty-seven miles.

This latter road will shortly extend its electric zone from Stamford to New Haven, Connecticut, making a total electric division of seventy-five miles. It should not be lost sight of that the Baltimore and Ohio Railroad was practically the pioneer in this form of transportation on a generous scale, as back in 1893 they began hauling their trains, both freight and passenger, from Camden station, Baltimore, Maryland, through the Belt Line tunnel to the northern outskirts of the city. The fact that these original Baltimore and Ohio motors were just as efficient in their day as the ones now in use, forms almost a convincing argument that the development of the electric engine is not all which might be reasonably looked for.

If railroads were generally electrified, there would probably be no better time made than at present. The time on the New Haven from Stamford to New York was made with ease by steam, and from all we can learn it is made no easier now.

W. B. G., Pearce, Alaska.—We regret that we cannot give you definite advice regarding the possibilities for employment on the line mentioned in your letter. Unfortunately, the railroad guide does not give us any information or clue through which to institute inquiry. We do not think,

however, that the prospects for operators on the west coast are any brighter than in the East, and these latter are scarcely sufficient to awaken enthusiasm. You could no doubt obtain information more to the point through direct correspondence than by any assistance which we could give you.

PLEASE describe the "Mother Hubbard" type of locomotive. Are there any in use now?—T. J., San José, California.

This term applies to engines equipped with the Wooten or extended fire-box. They came into prominence about 1877, at which time this form of fire-box was patented. It was a radical departure from the existing type of eight-wheel, or American locomotive, inasmuch that the fire-box was extended completely across the gage of the track, and over the driving wheels, thus permitting a vastly increased grate area.

This extension resulted in the cab being placed ahead of it, or about in the center of the boiler, as if located in the usual place on the end of the boiler it would take up the clearances along the permanent way. All engines having the cab so located are broadly termed "Mother Hubbards," and there are hundreds, if not thousands, running in this country.

They are almost the standard engine on the Lehigh Valley Railroad, and the Erie, and the Delaware, Lackawanna and Western have a large number of them in service.

There is a prejudice against them, as the engineer and fireman are quite remote in performing their duties. This is so strong in some sections that this type cannot run in certain States, we think Ohio and Indiana, and they are gradually dropping out. They have always been regarded with favor by motive-power management, as with their tremendous grate area they are able to get along with very inferior fuel, in fact, the idea of Mr. Wooten, when he first took out his patent, was for an engine with a fire-box so designed that it would burn satisfactorily the culm from mines.

G. W. V., Douglas, Arizona.—It is said that while an engine is in tow of another that the injectors on the dead engine will fill the boiler by proceeding as follows: Place reverse lever in back motion and open main throttle, cylinder cocks, and injector steam ran.

The idea is that the pistons of the engine being towed will act as pumps, and the tendency thereby being to rid the boiler of air, a vacuum would be created within the boiler, or at least a vacuum sufficient to raise the

check-valves from their seats and allow the water to flow in through the tank hose, feed-pipe, injector, and branch pipe. Theoretically, this should be so, but we have personally never had a practical connection with the experiment. No doubt this will meet the eye of many of our older readers among the engineers, who can cite a case of fact.

HOW would you proceed if a valve yoke broke on the road, with a plain slide-valve engine with balanced valves?
J. H., Baltimore, Maryland.

A valve yoke usually breaks off at the neck of the valve-stem. It will be readily discovered at the exhaust by a tremendous blow. If the valve is pushed far enough ahead it will blow; if not it is often mistaken for a slipped eccentric, so would suggest that the eccentrics be examined first.

It may be discovered in this way: Place the crank-pin on top or bottom quarter and reverse engine. If the steam continues to come out of the back cylinder-cock, you may depend it is usually the yoke. A great diversity of opinion exists regarding the best remedy for this kind of break. The time-honored and safest way is to raise the chest cover and block the ports central, replace the cover, remove the valve-rod and main rod and block the cross-head at the back end.


But this remedy requires much time and labor, and as time is a very important consideration on the road, and there appears to be no mechanical objection to the other methods, provided that the cross-head is securely fastened, we will state them. Disconnect the valve-rod, and push the valve clear ahead, remove the stem, if it would blow out, and use a gasket back of the gland, or hold the valve-stem intact with a valve-stem clamp. Block the cross-head at the front end and proceed. The pressure will hold the valve forward, and if the valve should move it will do no harm, provided the cross-head be securely blocked. Another way is to remove the release-valve, push the valve clear back, fit a block into the release-valve long enough to hold the valve back, then block cross-head at back end. Still another way is to push the valve-stem forward and clamp it by cocking the gland, then block cross-head at the front end.

If the yoke is only broken at one side of the valve it will affect only one exhaust. When the yoke pushes the valve forward, the valves will sound all right, but when it pulls the valve back, the engine will be lame. With careful handling you may finish your trip. Work engine in full gear with a light throttle.

SPIKE MALONE AUTOS.

BY JOHN C. RUSSELL.

He and Another Shorthorn Get Aboard a Careless Buggy and Disfigure the Scenery.

 HERE," said I to Spike Malone, tossing him a highly colored plate of one of the 1910 models of a famous car, "that's my next extravagancy when my ship comes in."

"There you go again," he growled, "You-all has got the most ridiculous notions concerning money of any human I tracks up with. Ain't that ship of yours about overdue? Where do you-all allow to get any such insignificant sum as three thousand dollars to ante up for this here careless cart?"

"Oh! I'll get her all right, some time!"

"Yes, and then I reckon you're calculating to do a heap of riding around this here Arizona scenery, with your gasoline buggy, ain't you?"

I assured him that such were my intentions. His next question riled me.

"Got any life insurance?" he drawled.

"What the thunder has that got to do with it, you old sorehead," I demanded in some heat. "You're nothing but a rank old calamity howler!"

He only grinned.

"Lemme tell you of a funny wrestle of little Spike's with one of these here bubble wagons and you'll sure sabe whyfor this life insurance is a good play to make when you-all invest in this auto of yours."

"Go on; bust yourself," I snapped at him, "but don't think that you're going to throw any scare into me."

Spike rolled himself another paper pipe, and after blowing a few smoke-rings at the ceiling broke into a reminiscent chuckle.

"Which this here episode is sure the banner frolic of my life," he laughed.

"Long about four years back, I was baling diamonds out of Winslow on the Santa Fe. Pretty nifty job, too, and for a wonder I stuck to it long enough so that I had whiskers down to my knees, so to speak, meaning thereby that, in point of seniority, I'm little and big casino with an ace up my sleeve.



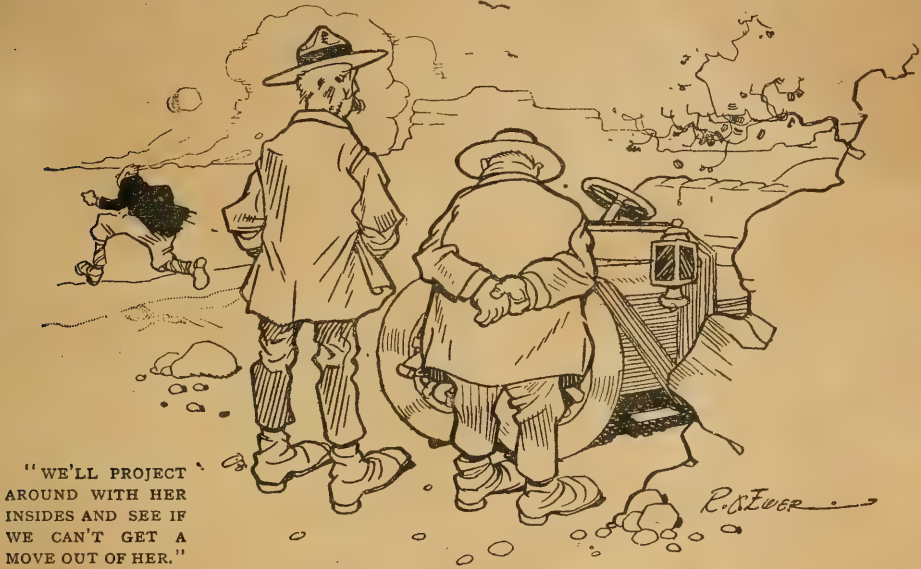
"WE WANT TO MAKE THIS PRAIRIE-DOG TOWN SET UP AND TAKE NOTICE."

"Meanwhile, with my natural bent for accumulating foolish and irresponsible friends, me and another shorthorn, Billy Day, contrives to git thick as the Little Colorado River in July. Which stream in that festive month is that solid that a man has to use an ax to extract a bucket of water.

“ Day and me tracks along annexing the dinero, and not having any suitable outlet whereby to dispose of it, we lays by

'longside of us, so we libates, frequent
and deep.

"Theaters and such minor frivolities serves to while away the time, but I notices Billy gets quite a peeve on about something. So I nails him and asks what's the trouble. 'Bout that time Billy gets an illumination that was sure 'a peach. He lets all Albuquerque know, by pulling off a Navajo sun-dance in the middle of Center Street, before I



quite a respectable pile. One day Billy and me gets our heads together and sizes up our roll. Man, she looms up like a barn in a fog! She sure looks huge!

"With one eye on that wad and the other far away on the festive gaieties of Albuquerque, I makes a motion that we lay off and proceed to that burg in search of these aforesaid festivities. Motion seconded and carried like a stampede of Dogie cattle for water.

"So four days later sees us, arm in arm, parading Center Street, Albuquerque, happy as two little birds. Billy gets infatuated with a sure 'nough 'lectric street-car, and after four round trips I has to drag him away by main force. He 'lows he's sure due to get metropolitan plenty pronto.

"A multitude of thirst emporiums along the right of way reminds us that for dryness the Mojave Desert is a fool

gets him bedded down in the hotel and inquires whyfor this exhibition.

" 'Spike,' says he when he gets calmed down, 'this here outfit of ours ain't putting on enough dog to suit me. We don't allow to have these here New Mexican sharps a saying that Old Arizona ever sent out anything that was slow. What we want to do is to make this prairie-dog town set up and take notice. Let's give 'em an episode from which they can date time.'

"'Go to it, Old Socks,' I told him, 'I'm with you from soda to hock! Watcher going to do?' I asks him, being some curious.

"'Hangfino yet,' says he, 'but the idea is ripening fast. Let's hire that big red auto down the street a piece and go for a ride to think it over.'"

"We ambles down to this here auto stable and dickers with the old negro

that runs her for the big red wagon aforesaid. There was a man to run her that was included in the deal, and we piles in for a little spin, swelling up something awful.

"She's sure fine riding, so we makes this auto herder run us out to Old Town just to see what she can do. Out there we stopped at the road-house to remove the dust from our tonsils with a few high ones.

"Then we begin to get merry, and lays the bed-plates for more trouble than we can rightly handle.

"When we start back, Billy insists that this here auto runner instruct him as to the whys and the wherefores of running the trouble cart, and right there was where I begin to see a large patch of dark-blue trouble on the horizon.

"Autos being a strange game to me, I follows my usual custom of sitting tight, saying nothing, and keeping an eye skinned for the other fellows while playing my hand close to my necktie.

"Billy, having reached that stage where he was the Great Jajandrum with the little round button on top, and this mechanic beginning to utter objections, Billy lights out of that front seat with a deep purple howl and starts for that runner-chap making war medicine.

"Here's where this runner sees a great white light, for he hops out of his seat and streaks it off into the dim distance like a scared coyote, Billy three jumps behind and several hollers ahead.

"Having satisfactorily abolished that spavined skate, we will now proceed to navigate this here do-funny on our own hook,' says Billy. 'Come over here, Spike, and cast your eagle eye over this lay-out of levers and such like.'

"I came.

"'Whatcher make of 'em,' he asks.

"I'm stumped and says, so.

"'Well, never say die,' says he, 'we'll project around with her insides and see if we can't get a move out of her,' and he pulls a lever here and there.

"No go.

"'Oh, thunderation,' says he, 'I forgot to wind her up. Git out and give that handle a twist or so, Spike,' says he, pointing to a crank hanging out of the pilot of the machine.

"I hops out and grabs the handle. Three turns I gave her, and then *chuff!* says the machine, and the handle sneaks up and lands me a wallop on the head like the crack of doom. I retires to the roadside in confusion and a beautiful display of fireworks.

"'Whoopee' yells Bill, 'she's going

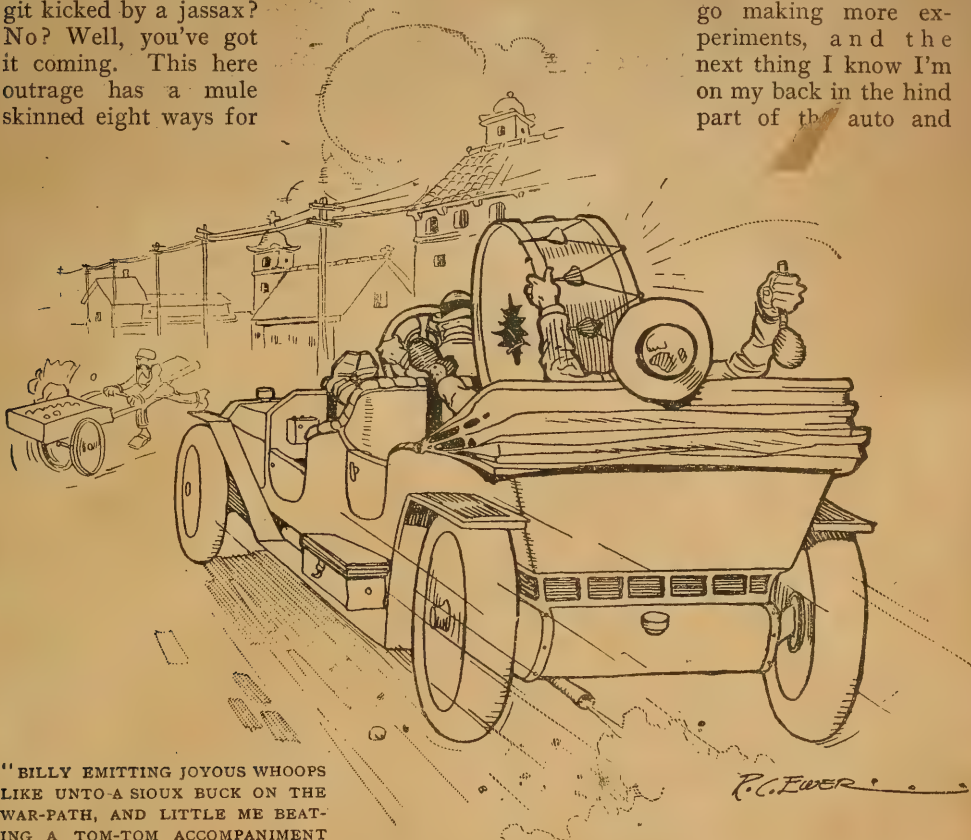


"BUT WE WENT ON INTO THE STORE."

all right! Come along here, Spike! Git in! Don't you mind a little thing like that.'

"'Little thing!' I snorts. 'Little thing! Did you ever git kicked by a jassax? No? Well, you've got it coming. This here outrage has a mule skinned eight ways for

"Billy grabs the little wheel that done the steering and pushed the lever back, and the noises ceased. I began to feel better. But he had to go making more experiments, and the next thing I know I'm on my back in the hind part of the auto and



"BILLY EMITTING JOYOUS WHOOPS LIKE UNTO-A SIOUX BUCK ON THE WAR-PATH, AND LITTLE ME BEATING A TOM-TOM ACCOMPANIMENT ON THE BIG DRUM."

Sunday. Wait till the scenery quits going 'round and I'll join you.'

"I gets up and navigates, some unsteady on my pins, over to the machine, the object of remarks from a large collection of Mexicans that blew up when the fracas started.

"Just then Billy horses over a lever and comes tumbling into my arms, and the buzz-wagon takes a flying start backward that would have done Arthur Duffy proud. It fetched up against a handy wall, making curious sounds. Also the Mexican population vanished suddenly, and the sounds they left behind indicated surprise and a good deal of scare.

"We corraled the machine again. By that time my mad was up, and we boarded her with warlike intentions.

we are streaking it down the road, Billy hanging onto his steering-wheel, yelping most joyous.

"'Hold on, sport!' I warned him. 'We better take another track to town. That runner chap you herded so gracefully off the scene will be sitting up in this pike like a bereaved catamount howling for vengeance with a passel of cops to keep him company against our coming.' So we sheared off down a by-road for a short cut to town.

"Just as we turned the corner an old Mexicana came into the road driving an ancient wagon and a more ancient plug. The sight of our little procession revived all the youth in the horse. He stood up on his hind legs and made faces at us, and then whirled off down the road like

a comet with a tail of dust, market vegetables, and plaintive Mexican protests. We followed gaily on.

"Our path was narrow, but not straight by a heap. Far from it. The trail we left behind would have made a snake dizzy. I was getting kind o' seasick, but Billy seemed to be having the time of his life.

"All of a sudden the car stopped dead, and Billy took a header out on the road, while yours truly made what was called in the innocent days of my boyhood a belly-whopper dive over the pilot and onto the right of way.

"Now, what the mischief caused that ruction?' I queried of Billy, who stood regarding me real foolish.

"I just touched off the brake,' says he.

"How did you know it was the brake?' I wanted to know.

"I didn't then,' says he; 'but I ain't got no doubts now!' And neither had I.

"In we got, and I says to Bill: 'Lead on, Horatio, but the next time you do any braking, you make a light application and leave that big hole strictly alone. When I get out hereafter, I may get out on my feet, not my face—sabe?' but all the answer I got was a growl, and we were off on our career of glory again.

"We rounded a corner, and ran plumb into a Salvation Army meeting. Meeting was dismissed right away. When we had cleared the mess, I found that the big bass drum had careened into the back of the auto, and, rescuing it, I began to play a tom-tom on it to add my bit to the excitement.

"By this time I was really beginning to enjoy it. We were making quite a hit.

"The next turn brought us into Center Avenue, the bright and busy Broadway of Albuquerque. We were going by and large, high, wide, and handsome, Billy emitting joyous whoops like unto a Sioux buck on the war-path, and little me beating a tom-tom accompaniment on the big bass drum.

"To help out the effect, the auto was doing its best to give fine portrayals of a big red Moki buck Indian pulling off the famous snake-dance of his tribe. She sure was glorious. Add to this a large and ever-growing string of interested spectators, who strove earnestly to over-

take us, and you have some glimmering of the sensation we produced.

"Business was suspended for the day when we passed. The sidewalks were miraculously deserted on our approach. Still, we did manage to pull off a few stunts, by way of variety. The auto swooped into a peanut-stand on one loop, and then went right across the street and took a market-basket out of a deaf woman's hand. We left her the hysterics, by way of recompense, however.

"As we neared the railroad tracks I begin to see our finish, and a large, scarlet finish it was. There was a crowd there. The police had a rope stretched across the road to stop us.

"Whoa, Billy!' I yelled at him.

'Look at the reception committee they've got spread out there for us. Better stop.'

"He turned his face to me and yelled, 'Stop, blazes! I can't stop! That brake won't work!'

"Oh, Lord!' I groaned from the depths of my heart.

"A bevy of the blue-coated minions of the law awaited us with outstretched arms, but not of welcome.

"Billy saw them, too, and tried to take the corner, but the auto had other designs, and plowed across the street and into a druggist's window.

"Here the beast gave an expiring groan and ceased activity in one gorgeous burst of orange-colored flame and a rank odor. But *we* went on into the store. I lit behind the soda-fountain, from which the clerk promptly skedaddled, while Billy went on and demolished the cigar-case before he toppled the cashier's stand over on that outraged young lady.

"I remembered thinking before the darkness descended that we was plumb lucky to light where we did, medical attendance being so handy and nice.

"Murmuring, 'Send for the wrecker,' I went peacefully to sleep.

"Afterward, in the convalescent ward, Billy remarks to me that we finished our ride with 'eclaw'—whatever the blazes that is. When I disagreed with him, and stood out that our finish was the drug-store, he was inclined to agree until the consequences burst in upon our inner senses, and then we decided that our finish was yet to come.

"It was."



Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 21.—To the Boys Who Bend Over the Desks—A Bunch of Workers Who Tackle Many Weighty Problems, but Are Human, After All.

I WAS a passenger on one of our local passenger-trains recently—a train of one baggage-car and two coaches. We had fifty-five pay passengers on board. Every mile our gross earnings were one dollar and ten cents.

We are single track. On the first long siding there was a train of hoppers loaded with coke, and in the clear to let us by. On a ways, in another siding, also into a clear for us, was a train of meat. Everything was out of the way for us.

The two trains lying by while we passed represented the revenue possibilities of the road. They were the money-makers. Our train, with its service and equipment, amounted to but little, but everything else was held up to let us proceed on time.

It has always been that way. The freight business of the road is subservient to the passenger.

The passenger is the spectacular side. A passenger conductor is the majordomo of the road. Ten people consult a ticket-agent to one the freight-agent.

The public is insistent and explosive over the passenger service, but not one

man in five ever touches or knows anything of the freight service.

When you speak of a railroad, the public has only a mental vision of passenger-trains and passenger-stations.

It sees a freight pull through with coal and iron and the country's products, and the only sensation aroused is that the noise and smoke ought to be abated.

Village trustees will act, commercial bodies will petition, and all the force and persuasion of local authorities will be exercised to induce railroads to build passenger stations of dizzy architecture. Who ever heard of a people demanding a convenient, commodious, and showy freight-house?

I got off the train in an industrial town.

The passenger-station is located between two busy streets and is flanked by a lawn of flowers and shrubs. It is a fancy, ornate, minareted, and portecochèred structure.

The people of the town are proud of it as belonging to them, same as the Carnegie library or the new post-office. All in a public sense, understand, but in no way thankful or considerate of the rail-

road company that furnished the money to erect it.

I disguised myself as a government inspector.

"What are your average receipts from the sale of tickets?" I asked the agent.

"Take it for the month," replied the agent. "Make it about forty-five hundred dollars. But if you want to examine the records, you will have to show me your certificate."

I bade him good morning. One of those nice, genteel, fare-you-well and see-you-again, backstepping, and apologetic good-byes.

I went three squares down the track to the freight-house.

I assumed a sort of dignified and authoritative poise, and thrust my hand into my inside coat-pocket. I rummaged a moment, and then exclaimed, with a show of exasperation:

"By George! My cards and certificates are in another pocket. Maybe you will tell me, anyway—about what are the average monthly earnings of this office?"

"From twenty to twenty-five thousand dollars," said the chief clerk, thumbing over a bunch of correspondence and never raising an eye.

"That's about five times as much business as they do at the passenger-station, is it not?"

"Anyway, that much more."

"When your business is so much more than the passenger-station's, why don't they have flower-beds around, and have a few gables, and some dormer windows, and tile roofing, and gimcrack eaves—"

"How long have you been out?" asked the clerk.

"Ornaments — decorations—curlicues —harmony — esthetic equilibrium — the freight-house beautiful!"

"We ought to find some way to notify his folks," put in another clerk.

But just then a big, redfaced drayman elbowed me away from the counter, and I stepped outside and surveyed the rakish-looking structure that answered for a freight-house.

Low, flat, soiled, and begrimed, unsought and unknown by the people generally, it had the merit to the company of bringing in five dollars to every one taken in at the passenger-station, with all the latter's spectacular flubdubbery.

There are no frills about the freight business to catch the public eye. It creates no public interest. If a road puts on two additional passenger-trains, it is an event of keen interest to every one living along the line. It can put on a half-dozen new freight-trains, and no one knows or cares about it beyond the employees.

"What bureau or association do you represent?" asked the chief clerk with a sort of weary indifference, when I reappeared at the counter. "We have an inspector of some sort for every working hour of the day," he went on, without waiting for me to reply. "Let me see, we had the car-service inspector here at nine o'clock. We had the Inspector for the Bureau of Weights and Measures at ten. We had the Joint Rate Commission man at eleven.

"We have representatives of the State Railroad Commission, the Interstate Commission, the Live Stock Inspector, the Nursery Stock Inspector, and the Pure Food Law man.

"The State Fertilizer Inspector ought to be here some time to-day, and in between we have a few special agents of our own to look after cars, buildings, insurance, real estate, right-of-way, and other things. My dear sir, there isn't any angle of our business that isn't provided for, either by the government or the railroad. Maybe you are the Inspector of Ventilation. Don't think he has called on us yet."

I grasped at the straw, and bestowed on the clerk one of my sickly, ingratiating smiles.

"That's it! That's me!" I exclaimed triumphantly. "I'm the Hot Air Man! Sorry I haven't a card. But never mind that! I want to write up the freight-house and the force. I want to make a story for other railroads of the strange, sensational, and amusing events that occur in a local freight-office."

The clerk eyed me with a Peary-to-Cook gaze.

"My deluded friend," said he, "no one cares for us. No one sees us. All we do is to get the business and take in the money. Nothing ever happens within these dismal walls. Do not waste your efforts on us. Go out and see the yard-crew. Chase the section-gang down the

track. Interview the crossing switchman. Down on No. 6 there are some camp-cars of Macedonians and Syrians, the newest and rawest recruits to the railroad army. See 'em—"

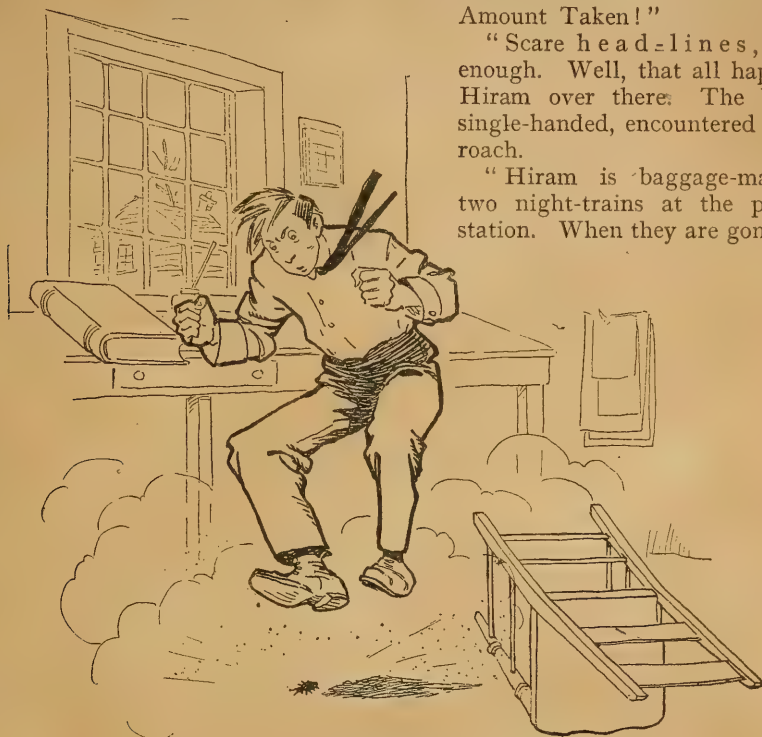
At that moment a clerk who was making out expense bills at a desk on the other side of the office suddenly jumped up and grasped a book and brought it down with two or three resounding

roach is geared up like Barney Oldfield's auto, and it takes quick and violent action to light on one of them.

"But Hiram had a real adventure a few nights ago. No doubt you read about it in the dailies. Yes, that was it, headed: 'Night Expressman Robbed! Held up by a Lone Bandit and Many Thousand Dollars Taken! Detectives at Work on the Case! Railroads and Express Officials Refuse to Make Known the Amount Taken!'"

"Scare headlines, all right enough. Well, that all happened to Hiram over there. The boy that, single-handed, encountered the cockroach.

"Hiram is baggage-master for two night-trains at the passenger-station. When they are gone, Hiram



"A COCKROACH IS GEARED UP LIKE BARNEY OLDFIELD'S AUTO, AND IT TAKES QUICK AND VIOLENT ACTION TO LIGHT ON ONE."

whacks on the desk, then jumped the floor a half-dozen times with all the fury of a maniac. He then calmly resumed his seat, picked up his indelible, and proceeded expensing.

"Poor fellow," said I sympathetically. "Unbalanced from trying to do three men's work. Awful thing to have frazzled nerves. Has he a family?"

"Be not alarmed," said the chief clerk assuringly. "Be not deceived. Hiram had just killed a cockroach. You can't run a local freight-office without cockroaches any more than you can run a boarding-house without prunes. A cock-

tucks the freight-house mail into a bag and treks for the freight-house. Half-way between the two places, the other night, he ran onto Captain Kidd or Dick Duval or Robert Younger, and it was a case of hands up!

"The robber took the bag. He never touched Hiram's silveroid watch, his imitation ruby, nor the forty-four cents he had left over from last month's pay. All he wanted was the bag and its contents. He got it, and he made away with it.

"He left certain orders with Hiram relative to posing, and Hiram stood there in the attitude of grasping with one hand

the handle of the Great Dipper, and with the other making a one-handed stop of Halley's comet.

"After a time, a night-watchman accidentally found him and told him he could relax.

"The lone bandit made a rich haul. He got the papers in ten claims. He got an even dozen of tracers. He got a brand-new *de luxe* edition of the Southern Classification. He got supplements and circulars enough to make him the wisest bandit that ever raised a gun. No wonder the railroad and express people refused to talk. A robbery like that stuns us all."

"I notice the clerk over at the cabinet muttering to himself," said I softly to the chief clerk. "When he crossed the room a moment ago he moved with a halting, jerky step. He isn't disconnected on one side, is he?"

"That is the rate-clerk. Judge him gently. I will explain. We have printed instructions from every source, covering every phase of transportation. We have all the classifications. We have exceptions, and qualifying rules. We get crisscrossing and amending supplements and circulars until it has the rate-clerk going like a prairie air-motor on a windy day. It is a wise rate-clerk that sits down to his desk these exacting days and knows exactly where he is.

"You noticed the rate-clerk get up and walk over to the water-cooler after two hours assorting, filing, and adjusting. You thought he appeared groggy. It may be he is developing locomotor ataxia following the devious windings to find what it all means and where it belongs."

"But that peculiar expression of the eyes?"

"That is the strabismus. He gets that by trying to follow Supplement R-49 to I.I.C. 10.001, amending that part of Article 16, Paragraph X, and canceling Circular 2313, and restoring the provisions of Joint Notice 101, and calling particular attention to Rule 29b—see reference No. XX, Notes *, †, and gg. For explanation of character-marks see page 3, etc., etc.

"Last month he forgot the pay-car. A few evenings ago he remained at his desk, working after the rest of us had gone.

"These are serious symptoms.

"They indicate an acute attack of inflammatory supplemento tariffitis—that new disease.

"We have recommended a change of air and scene. What we mean by that is for him to get up and go out into the freight-house, stand in the door, and look out over the vacant lot adjoining, shifting the vision leisurely to the ice-house and then to the row of coal-sheds that lie in the offing.

"Then he should engage the freight-house man in light, blithesome conversation as he loads his truck with green hides, at the same time harking to the mellifluous chant of the slaughter-house teamster who has just mashed a thumb, then back to the desk. For in the meantime another batch of tariffs and supplements has arrived."

Almost every freight-office is provided with a back door or window view.

Whenever there is a lull, a clerk stands and gazes out pensively. It may overlook a vacant lot, some dingy cars, a straggling tree or two, or merely the city garbage dump.

No matter.

Many times a day a clerk looks out on it and dreams. Then he saunters back to his desk, and another clerk looks out and dreams.

However gloomy the perspective or uninviting the view, in some way over the routine it casts roseate reflections. It creates a longing for the open and mental mirages of fields and lakes, autos and steam-yachts.

"See here, John," said the chief clerk, "you have looked out of the window ten times a day for three years, and now, after ten thousand inspections, it is safe to say you cannot write a description of that big tree that stands in the foreground that will enable any one to identify it."

John tried it with a bravado flourish, but failed. He could not say if it was elm, oak, or maple, the kind of leaf, nor the number or direction of its principal branches.

"What's the odds?" retorted John defiantly. "That's got nothing to do with booking freight-bills."

Strangely enough, none of the others could describe the most prominent objects.

That is the way we learned they were

not looking—only dreaming. The peep of the open contained nothing within itself, only the subtle suggestion of the boundless beyond.

It is a dead, dull life, indeed, to the man who works all the time within narrow walls, if there are not some dreams, some hope concealed in the far-off years to be unfolded.

Credit Shakespeare with this:

True hope is swift, and flies with swallow's wings;
Kings it makes gods, and meaner creatures kings.

"Pardon me," said I to the chief clerk. "The voluminous document you now hold in your hand, bearing the large letters 'Special,' and which you are about to enclose in an envelope marked with a register stamp, has aroused my curiosity. May I ask the purport of it?"

"You may," replied the chief clerk blandly, at the same time unfolding and

smoothing out the papers. "This is a freight claim."

"Indeed!" I exclaimed. "Does it involve some fundamental right of the road—some vital privilege—some—"

"You judge by the bulk. The truth is it is for three dollars and sixty cents," the chief clerk explained, "and no constitutional question raised. This is for damage on a shipment of drain tile, and some of them were broken. These papers seek to find the cause of the damage and fix the responsibility."

"That is an easy matter, is it not?" I asked, with childlike innocence.

The chief clerk bestowed a pitying glance.

"We have here," he went on, thumbing the papers one by one, "a car that was handled by three conductors and went through two yards. We have statements from every man who handled the car to this effect: 'No rough handling in my charge.' So you see there is but one



"GRASPING WITH ONE HAND THE HANDLE OF THE GREAT DIPPER, AND WITH THE OTHER MAKING A ONE-HANDED STOP OF HALLEY'S COMET."

inference, and that is that certain contractions and expansions, brought on by variations of the temperature, have broken the tile. That puts it up to Providence."

"Isn't it possible that some of those statements are incorrect?"

the mucilage thinner on the envelope-flap."

"What document have you there?" I asked of the bill-clerk.

"A tracer," he replied. "There's thousands of them in circulation, sir. They are put out as recklessly as clearing-house certificates during a panic. You see, when a shipment don't arrive the day before it's shipped, we have to put a tracer after it."

"People have great faith in tracers. When a patron kicks of delay, we tell him we'll put a tracer after it. He does not know just what a tracer is, but he has a misty sort of an idea that it lets out a few hoarse, bloodhound barks, gets its nose to the rail, picks up the scent, and runs down the loitering shipments with amazing speed and certainty. It's a sort of opiate we give our kicking patrons. Quiets them for the time. It's all a fake, sir."

"A tracer is a printed blank whereon one agent informs another that he has forwarded, on such a date and waybill, one crate of cabbage. Has it been delivered? What date, and to whom? In time, unless it accidentally falls into the waste-

basket or office-stove, the receiving-agent returns the tracer with the necessary information. Now, if the crate should arrive about the time the tracer is put out, it gets the credit for turning the trick."

"There seems to be a general impression that 'putting a tracer after it' is the same as placing the lever at high-speed notch. The real fact is, it hurries matters about as much as writing 'Rush' on a letter before dropping it in the post-office."

"There isn't much excitement about a freight-office," the chief clerk ventured, after a while. "The draymen line up to the counter every day for their bills, and some one from the factories comes over with the daily billing. There is no rustle of silk and nod of ostrich plumes, and happy vacation faces; like they have every hour over at the passenger-station. All our joys come by telephone."



J. NORMAN LIND.

"IT IS A LARGE PART OF OUR FOOD-SUPPLY, AND COMES TO US GRATIS."

"Why should we doubt? Why should we question the word of our fellow workers? Did you ever stop to think what a horrible thing it is to lose faith in man? I have looked over claims for ten years, and I have seen that statement ten thousand times: 'No rough handling in my charge.'"

"And now, sir, I know, by undisputed testimony, first hand, that no two cars ever came together with greater force than is employed in smacking the lips of a fair lady."

I watched him seal up the papers.

"May I ask why you lick the envelope twice?"

"Sh-sh—" he replied, with an admonishing wave of the hand and bending toward me. "It is an office secret. It is a large part of our food-supply, and comes to us gratis. Never breathe it. If it were known, the company would spread

"B-r-r-r-r-r-r-r-r!"

Rings every minute.

"Hallo! Hallo! Freight-office. Yes; freight-office! This is Simpkins talking! Simpkins, the chief clerk! Mr. Simpkins. A barrel of potatoes to Bowling Green, Kentucky — will cost you about eighty-five cents — eighty-five! E-i-g-h-t-y-f-i-v-e cents! They'll be transferred two or three times. Yes, two or three times! About a week, I should say. No! I should expect them much sooner. Yes, I know a letter goes through in one day — this is local freight, you know. I can't say about express rates and time. You will have to call up the express company."

"B-r-r-r-r-r-r-r-r!"

"Unfinished business," continued the chief clerk, hanging up the receiver.

The telephone is a great invention and convenience in modern business transactions, but it has an irritating rudeness not possessed by any other mechanical contrivance. It doesn't matter what you are doing or when, it "butts in" with a persistence dangerously provoking.

There is nothing tentative about a "phone." Nothing of the "I beg your pardon for interrupting, but—" It has

neither politeness nor modesty. No matter what mood you are in, what occupies your thoughts or engages your hands, it calls harshly and unmindfully for immediate attention.

Time and again in every local freight-office there is a mad impulse to seize the apparatus and hurl it through the window. Occasionally the wind or lightning kindly puts it out of business for a little while. A peaceful quiet — a delightful calm settles down over the office, and work proceeds with despatch.

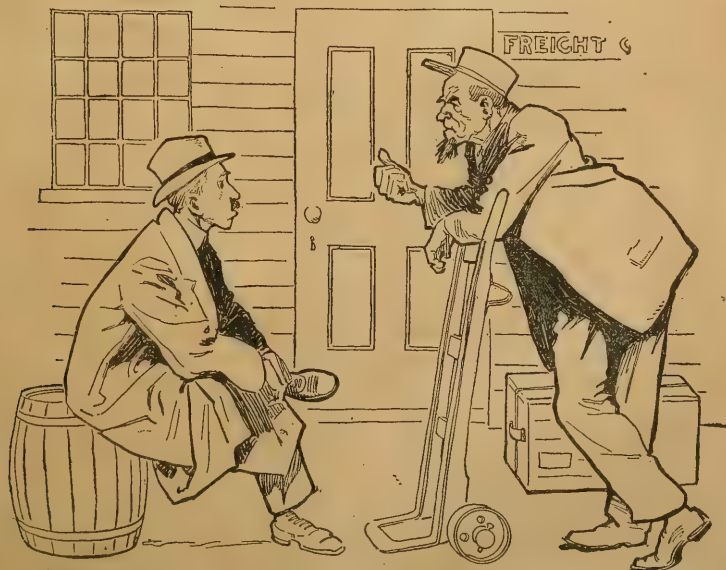
The boys who bend over the desks in the freight-house are not mere machines doing certain things with automatic and unvarying regularity.

They have hopes and ambitions. They take a peep out in the world, and they form opinions, not always well-defined and wise, but none the less robust.

They have some bickerings, some jealousies, some resentments—human qualities, all.

All great events receive the attention of this bunch of workers.

They wrangle in argument over "Who hit Billy Patterson?" "How old is Ann?" and "Which was the first one there, Peary or Cook?"



J. NORMAN LIND.

"TO HEAR 'EM TALK, YOU'D THINK THEY HAD ACTUALLY STAYED OUT SOME NIGHT AFTER NINE O'CLOCK!"

They develop rank partizanship in political campaigns. They are ready with zeal and enthusiasm for anything that comes before the public mind.

Their blood teems with sporting bacilli.

They follow the various baseball leagues and associations, and every game is analyzed and discussed.

They have their favorite clubs and their favorite leagues, and they feel and express elation or disappointment as they win or lose.

They banter and bet.

They "josh" one another without much regard.

They kindle with excitement and enthusiasm as the race narrows.

They take sides in the post-season games between the leaders of the big leagues, and for a week, while the battle is being waged on the diamond; every detail of the contest is gone over and over within the office walls, and there is wild-eyed victory and galling defeat a hundred miles away from the sniff of the real powder.

All this fills "Big Sam" with disgust.

"Big Sam" is the warehouse man. I went out on the loading platform and sat down on a barrel.

He stopped before me and leaned heavily on his truck and took a chew of tobacco. No mincy, dudish tidbit, but a quantity like unto the raise to the barn-loft on the hay-fork.

"What do them fellers know about sport, anyway?" said Sam, jabbing his thumb toward the freight-office with a gesture of disgust.

"They talk about baseball, and croquet, and tiddledywinks, and 'Whose got the button?' but they ain't any of 'em been within a thousand miles of real sport.

"They make me tired. I've seen real Spanish *toreros* down at Laredo. Why, in one afternoon, I seen three bulls and two horses killed, and one *matador* laid out.

"Then I was down at Vicksburg, Mississippi, when old John L., the greatest

that ever was, you bet, put the fixin's to Jake Kilrain! Seventy-five rounds! Talk about sport! They ain't anything like that in these days.

"Why, them young fellers ain't never seen anything more exciting than opening a bottle of pop. But, to hear 'em talk, you'd think they had actually stayed out some night until after nine o'clock!"

Sam sneered with contempt, and continued: "I see by the papers this morning that the scrap between Joe Halligan and Jim Hackey came out just as I said it would, only I didn't expect Hackey to last nine rounds. I said he'd be down and out by the seventh round. Hackey ain't in the same class with Halligan.

"Halligan just let him prance around until he thought the audience had got its money's worth, then he handed him one of them upper-cut slumber coaxers, and that was the same to Hackey as takin' half a pound of morphin'."

Sam seized the truck, and marched off as triumphantly as if he were Halligan's trainer.

And of such stuff are dreams made.

For in reality I know Sam has never seen a bull-fight, and I do not think he ever saw a prize-fight. But he is saturated with the "dope," and when he is not sweating from honest labor it exudes from his pores.

"Hasn't the chief clerk a fad of some kind?" I asked of the rate-clerk.

"I'll tell you on the quiet he has," responded the rate-clerk, glad to suspend operations and discuss anything. "He's studying a modern cult called 'The New Thought.' You see, the mind is always serene and all powerful. I got that from him. He is seeking to have constant mental control that will never be disturbed. And around a freight-office, too. Wouldn't that jar you? He is getting instructions every few days from a blond-headed young woman."

"Oh, ho! From a young lady with golden hair! Don't let him fool you, boy. That is no 'New Thought.' That is the 'Oldest Thought' known to man!"

A Whistle Is a Mighty Useful Thing, But You Don't Have to Be Blowing it All the Time.—Reflections of The Unhurt Cow.

Perpetual Motion—the Greatest of Delusions.

BY E. L. BACON.

IN spite of endless failures, the blind seekers of a force without a law have gone on and on, encouraged by the seeming successes of certain plausible or ingenious impostors. Some of these men have hoodwinked a credulous world; all without achieving the slightest good with their sensational inventions. By the combined work of these apparently successful fakers not an industrial wheel was ever turned, not a moment saved, not a labor lightened. They are the chief provers of their own delusions and their own trickery.

No. 2.—Orffyreus, Prince of Perpetual Motion Sharps, Deceived Princes, Dukes, and Even Scientific Men, Until His Nerve Gave Way on the Eve of Exposure.



MYSTERY that will never be solved was the perpetual-motion machine of Jean Ernest Elie-Bessler Orffyreus. For a century after his death, in 1745,

there were hundreds of students of the search for self-motive power who were convinced that he had really solved the great problem.

Probably there are believers in him even to this day. Many and many a mechanic has been drawn into the centuries-old search for the impossible, solely through his belief in Orffyreus's success.

He was the prince of impostors of his time. He fooled half the rulers of Europe with his mysterious wheel, and it raised him from a poor, wandering showman, sometimes hooted and scoffed at by village crowds, to fame and high position.

There was no promise of what was going to happen connected with his machine. His was a wheel that really revolved. It not only revolved, but raised heavy weights. What was the source of its power

is as much of a riddle to-day as it was in his own time. Men who really believe in the possibility of perpetual motion are likely to maintain that there was no fraud about it, and that it was the greatest invention of all time.

Try to convince a perpetual motion inventor of the fallacy of his idea, and he will point to this man Orffyreus and tell you the great secret was found two hundred years ago, and lost. Whatever the secret of that famous wheel was, it was destroyed by the inventor himself; for with his own hands he smashed the machine to fragments and never made another.

The Master Mystifier.

During the year 1712, Orffyreus appeared in several villages in Saxony, where he exhibited to street crowds a swiftly revolving wheel which he declared would never stop unless interfered with. Sometimes the crowds looked upon him as a great genius, sometimes they stoned him.

Before long, news of the wheel had spread about through Europe, and Maurice William, Duke of Saxony, showed a lively interest in it. In 1715, Orffyreus exhibited his invention before a commission selected by the duke, on which were the ducal secretary and other high-state officials, and Frederick Hoffman, a distinguished physician. The commission was convinced that perpetual motion had at last been discovered.

Royal Indorsement.

A few days later, on November 26, the duke himself came to see the wheel. He ordered the doors and windows of the room in which it was running to be closed and sealed, and a guard was left outside.

On the 4th of the following January the duke came again. The seals on doors and windows were removed, and the room was thrown open. The wheel was running as fast as ever!

This surprising discovery carried absolute conviction to the mind of the duke. He pledged himself under his name and seal that the construction of the machine was not such that it required winding up.

The inventor's fame spread rapidly after this test. The Emperor of Austria, hearing of his achievement, offered to give Herr Schluter, a celebrated engineer, thirty thousand rubles if he would construct a perpetual-motion machine.

Herr Schluter tried and failed, and died of a broken heart. His son took up the attempt, but the thirty thousand rubles remained unwon.

Andreas Gartner, Court Model-Master of the King of Poland, denounced Orffyreus as a fraud, but declared that he himself could make a perpetual-motion machine. The king gave him an order to construct such a machine, and he set to work upon it. He made a machine in which a ball was seen to run up and down on a wheel, and thereby raise weights.

A Shift of Patrons.

The king, his ministers, architects, and mechanics, brought Gartner into great notice, and a special patent was granted to him for the protection of his invention.

In the meantime, Prince Lord Charles, Landgrave of Hesse, had become the pa-

tron of Orffyreus. The inventor had been attacked from many quarters in Saxony, and for some unexplained reason the duke's suspicions had been aroused against him.

The landgrave installed Orffyreus in his Castle of Weissenstein, near Cassel. There the wheel was set up and exhibited, and it so pleased the landgrave that, eventually, he made its inventor High Hessian Councilor of Commerce.

Orffyreus explained his source of power in these words:

"The inward structure of the wheel is of a nature according to the laws of mechanical perpetual motion, so arranged that by disposed weights once in rotation they gain force from their own swinging, and must continue their movement as long as their structure does not lose its position and arrangement. They are so arranged one against another that they can never obtain equilibrium or the *punctum quietus* which they unceasingly seek in their wondrous speedy flight. One or other of them must apply its weight vertically to the axis, which in its turn will also move."

A Scientist's Approval.

Surely there must have been something wonderfully ingenious about this wheel, for when Baron Fischer, architect to the emperor, came to Cassel to inspect it, he could find no trace of any deception. He saw a wheel twelve feet in diameter revolving twenty-six times a minute. A cord was then tied to the axle to turn an Archimedean screw to raise water, and the wheel then revolved twenty times a minute.

"I then stopped the wheel with much difficulty," wrote the baron, "holding on the circumference with both hands. An attempt to stop it suddenly would raise a man from the ground."

"Having stopped it in this manner, it remained stationary. (And here, sir, is the greatest proof of a perpetual motion.) I commenced the movements very gently to see if it would of itself regain its former rapidity, which I doubted, believing, as they had said in London, that it only preserved for a long time the impetus of the impulse first communicated."

"But to my great astonishment, I ob-

served that the rapidity of the wheel augmented little by little until it had made two turns, and then it regained its former speed. I examined well the axles of this wheel to see if there was any hidden artifice, but I was unable to see anything more than the two small axles on which the wheel was suspended by the center.

"His highness, who is a perfect mathematician, assured me that the machine is so simple that a carpenter's boy could understand and make it after having seen the exterior."

Unproven Doubts.

A woman servant declared to some investigators who had been invited to the castle by the landgrave to inspect the machine, that she had been hired by Orffyreus to turn the wheel from an adjoining room, but Baron Fischer said this would have been impossible. So said other distinguished men who had examined it.

They declared they had found not the slightest trace of any communication with the adjoining room. The servant, however, after announcing that Orffyreus had threatened to strangle her if she disclosed the secret, disappeared, and the inventor himself, apparently roused to fury by the suspicions directed against him, smashed the machine into small pieces. Although he lived for many years afterward, he never furnished the world with any more clues to the mystery's solution.

Europe was full of perpetual-motion impostors for a century after Orffyreus's death. There was a dramatic exposure of one of them at Frankfort in 1817. J. Geiser had been exhibiting in that city a pendulum clock which he declared possessed self-motive power.

Another Fake.

A trifling accident happened to the clock while it was on exhibition, and the inventor set about to repair the damage. He fell dead while he was tinkering with the works. While he was lying there, some mechanics investigated the interior of his machine and discovered a concealed winding apparatus.

In 1812, Charles Readhefer, of Philadelphia, came near getting a grant of funds from the legislature of Pennsyl-

vania to back his perpetual-motion project. Such firm faith did the legislators have in his revolving wheel that they appointed a committee to investigate it.

Readhefer had set his wheel up in a small building in Philadelphia, on the banks of the Schuylkill River. When the legislative committee arrived there, they found the doors and windows locked.

One of the members of the committee was Nathan Sellers. He had brought with him his son, Coleman, a boy. Coleman Sellers climbed up to one of the barred windows and looked in. It was this boy's sharp eyes and sharp wits that saved the State of Pennsylvania from making itself ridiculous.

"I can see the machine," cried the boy, "and it's a fraud."

He called his father to the window and pointed out what he had seen that resulted later in Readhefer's exposure. The machine had a set of teeth in the periphery of the rotating table which geared into another wheel whose axle was supposed to transmit the power to some other point where work was to be done.

A Child Leads Them.

The boy had noticed that the faces of the teeth on the two wheels were polished by wear on the wrong sides. The boy explained that if the machine were driven as Readhefer declared it was, it would be the other sides of the teeth that would show the wear, and that the power must come from some concealed mechanism in the base.

This argument failed to convince the committee, but it led to an investigation that resulted, some time afterward, in the discovery of concealed clockwork. Readhefer, who had induced many persons to invest large sums of money in his scheme, left the State in a hurry.

"I shall soon revolutionize the industrial world," declared John Paine when, in 1875, he exhibited his electro-magnetic engine in Newark, New Jersey. He invited several well-known scientists to come and see his machine work. They came and watched the contrivance driving lathes and sawing wood, and went away bewildered.

Paine organized a company and sold stock. The shares were quickly gobbled

up, and he was growing rich when, one day, a committee of stockholders waited upon him to inspect the inner workings of the machine with the assistance of an expert.

Under pretext of getting a drink, the inventor went out. He never came back. It was discovered, during his absence, that a belt ran from the axle of the machine to steam power in the room below.

Scores of such swindlers there have been in this country since that time. Most of them have been exposed, and some are in prison.

Keely the Plausible.

None of them, however, ranked with that marvel of impostors, John Ernest Worrell Keely. He it was who kept some of the world's greatest scientists a guessing, and millions of money sprang to the assistance of his motor project during its quarter of a century existence.

An overpowering personality was his. He possessed a phraseology as incomprehensible as it was beguiling. He talked of "molecular vibration," "oscillation of the atom," "sympathetic equilibrium," and "quadruple negative harmonics" until the average mind found its receptive powers unequal to the occasion. Nobody knew just what he was driving at, but almost everybody who came under the spell of his bewildering conversation believed in him.

With a series of tuning-forks he declared that he could disintegrate air and release an etheric force rivaling a cyclone in strength. A pint of water would work wonders. Before the eyes of the spectators in his laboratory, great ropes were torn apart, iron bars broken or twisted, and bullets discharged through twelve-inch planks.

The De-Polar Force.

With one quart of water he would be able to send a train from Philadelphia to San Francisco; with a gallon he would propel a steamship from New York to Liverpool and back.

Keely declared he had discovered that there existed polar and de-polar waves of force. "If we take the compass," said his lawyer, in explaining the wonderful mo-

tor, "and put it near the machine, the needle will cease to be controlled by the force that otherwise makes it point toward the north, and will turn toward the machine.

"Suppose you have two tuning-forks pitched in precisely the same tone, and both giving absolutely the same sound vibration. Put one on a table in one room, put the other on a table in another room.

"Strike one, and immediately the other will take the tone and vibrate in harmony with it. The cosmic force that carries that vibration from one fork to the other and makes them vibrate in harmony is the force that Keely has discovered. That force has now been harnessed."

Set up in his laboratory in Philadelphia, the motor was a very impressive piece of machinery. It was composed of the motor proper and the transmitter. The machine rested on a heavy brass base. Also, there was a heavy brass sphere.

Musical Motive-Power.

Between the engine and the transmitter ran a series of wires, and along the base of the transmitter an array of steel rods bristled like so many fixed bayonets. These steel rods were responsive to the touch, and compared to an ordinary musical scale, which is subject to the tuning-fork.

The interior of the globe almost defied description, but out of the complex mass brass tubes and adhesive plates stood prominently. This was the shifting resonator, as Keely termed it. The tubes and plates took up the vibratory sound and carried it along with rapidity. Of these vibrations there were seven distinct kinds, said Keely, each of the seven capable of infinitesimal division.

The motor itself consisted of a heavy iron hoop placed firmly on the plate. Within this hoop ran a drum with eight spokes. When it was once in operation, the movements of the drum were very rapid. The harmonics were supposed to start the machinery by "etheric force."

Exposed, but Still Puzzling.

To the day of his death, when he had kept up the deception for a quarter of a century, his stockholders held their faith in him. It was not until several weeks

afterward, when, late on a winter's night in 1899, the walls and flooring of his laboratory were ripped up and secret tubes discovered, that they realized the colossal fraud.

Even to this day nobody is quite sure whether it was compressed air or some other force that Keely brought through those tubes.

In even greater numbers than the frauds are the tragedies that mark the long road to this unattainable goal. In 1890 a distinguished-looking old man, John Kreyezich, a cabinetmaker by trade, went to live in a poor little room at No. 50 Fourteenth Street, Hoboken.

He paid one dollar and fifty cents a week for his room, and not only slept and prepared his own meals in it, but used it as a work-shop. His food was of the poorest sort, and his clothes were threadbare. All day and until late into the night he could be heard sawing and hammering at his carpenter's bench.

Tragedies of Futility.

"Some day," he told his landlady, "I shall make millions. I shall make heat, light, and cold. I shall drive steamships and railroad trains. I shall revolutionize industry. My machine on which I am working will run without fuel, and will never stop."

He never allowed anybody in his room. He was afraid, he explained, that his great invention would be stolen.

Seven long years he hammered and sawed, and then, one day, two strangers, said to be rich promoters from Boston, called on him. After that, every week for one year they sent him ten dollars, and he bought a new suit of clothes and ate a little more regularly. Then the remittances stopped.

"They got tired," he told his landlady. "They wanted their millions too quickly. Ah, they'll have nothing now!"

Three more years went by. One evening it occurred to the landlady that she had not seen the old man for several days. She went to his door and knocked. There was no reply. She tried to open it. It was locked.

Then she called in a policeman, and the door was broken open. Lying against a great wheel surmounting a mass of ma-

chinery was the old man, dead, his stiffened fingers gripping a tangle of wires.

The big wheel hung on a steel axle, with which the wires had seemed to have some important connection. Fastened to the wheel's circumference, at regular distances apart, were a number of buckets, and at the base of the wheel was a tub of water.

Nobody knew where the old inventor had come from, and they buried him in Potter's Field.

A Railroad Man's Ruin.

Charles Heiner was a machinist employed in the roundhouse of the New York Central Railroad at Mott Haven, and lived with his wife in a flat at No. 693 East One Hundred and Forty-Fifth Street, New York. For twenty-five years he had spent most of his spare time working on a machine that he expected would give perpetual motion. Every night after dinner he would go to his room and tinker with his array of wheels and cogs and chains.

"I shall be rich and famous some day," he told his wife.

She had unbounded faith in him, and encouraged him when sometimes his spirits flagged. One day in 1893 he lost his position. He gave his bank deposit of a few hundred dollars to his wife and went to work with desperate energy on his machine. He must solve the great problem before his savings were spent.

The months went by, and the bank account was almost exhausted. But still the wheels would not go.

After dinner one day he said to his wife: "I'm tired out, and sha'n't do any work to-night." He carefully covered up his wheels and chains and went to bed.

In the morning she found him hanging dead from a rope tied to the apex of his machine. When some machinists who had known him investigated the contrivance on which he had toiled for so many years, they found that evidently the whole complex arrangement was based on the idea of the overbalancing wheel.

The Despair of Weariness.

In Cleveland, in 1908, B. F. Eibler was found one morning dead in his work-

shop with poison beside him. For two years he had been working night and day over a mysterious machine. He had never explained to anybody what it was going to be; but just before taking the poison, he wrote a letter in which he told of a fruitless struggle to invent an attachment for electric automobiles in which the electricity used in running the motor-car would be replaced with power generated by the car itself.

In 1901, a handsome young Syrian was among the students who were taking the course in mechanical engineering at Columbia University. He was Basile Saheb, who had come to this country three years before, and had been living at No. 131 West One Hundred and Eleventh Street. There he had fitted up a little laboratory, where he worked every evening until midnight on a perpetual-motion machine.

One morning a shot rang out from the laboratory, and there was the sound of a heavy fall on the floor. Some of the startled lodgers in the house rushed to the student's door and found him lying dead against the bed. Strewn across the floor was a mass of pulleys, valves, levers, cog-wheels and chains. He had smashed his machine to pieces.

An Old Man's Awakening.

In the summer of the same year, William Herford, an old carpenter in Williamsburg, committed suicide in his workshop at No. 265 Ellery Street. For thirty years he had tried to find perpetual motion. Two weeks before his death he told his wife that he realized at last that his long search had been hopeless, and that he had wasted his life on a delusion.

All his money he had spent on his machine, and left scarce enough to bury him. It was a most complex contrivance that he left behind him, so complex, in fact, that nobody could understand on what lines he had been working.

As pathetic as any of these tragedies was the story of Adolf Schaap, an old Hungarian. He came to America from his native country when a young man, and became a thrifty ironworker. He married and had children, and his home was a happy and prosperous one.

And then, somehow, the delusion of

perpetual motion got into his brain and drove him on to ruin. He gave up his job as an ironworker, and spent all his time constructing a machine to carry out his ambition.

Before long the family treasury ran empty, and there was no food in the house. Yet he could not be persuaded to leave his machine.

Worst Form of the Mania.

"Never mind!" he cried. "We can starve for a while. We'll soon have money enough; we'll have millions."

Before another week had passed his wife had left him, taking the children with her. The landlord put him out of his home, for the rent was long overdue. Schaap picked up his few belongings and his machine and went to live in a room at No. 346 East Fifty-Fourth Street.

There he stayed and worked on his machine for years. Sometimes he found an odd job, and made enough money to tide him along, but most of the time he was hammering away in his room.

Very carefully he guarded his secret, for nobody was ever allowed within his door. The fear that some one might steal his invention always worried him.

One day in 1903, the landlady of the place, who had noticed that the old man had been growing very thin and white, and had gone out very seldom for weeks, went to his room to offer him some food. Receiving no answer to her knock, she pushed the door open and caught a glimpse of him in his big armchair, gazing abstractedly at a machine that was racing about his room.

Weak Guardian of Nothing.

The next moment he caught sight of her, and, jumping to his feet and pointing to the door, he shouted angrily, "Go!"

But the kind-hearted landlady felt sure that her lodger had not eaten for days, and she appealed in his behalf to the Charity Organization Society. It was found that the old man was sick and unable to walk, and he was taken to Bellevue Hospital. He did not live very long afterwards, and he died a pauper; but to his last hour he held faith in his machine.

(The end.)



THE BAREEN BLOCKADE.

BY J. R. STAFFORD.

**A Real Man Goes Through the Fire
Before He Is Admitted to Be Pure Gold.**

FOR fifteen days the sidings at Bareen had been filling with all manner of cars. The yards had become a sink into which all manner of freight drifted and stayed. It was a real blockade.

Henderson, the yardmaster, whose duty it was to keep the traffic moving, had looked on the forming blockade with the same feeling that another man might have watched flames eating upon his fortunes. He knew that when a blockade becomes absolute, a railroad quits the business of transportation and goes to chopping off heads and cleaning house. His head was on the block.

To make matters worse, Henderson had no more to do with that blockade than you or I. Patterson, division superintendent at Bareen, son-in-law to Old MacReady, the general manager of the G. and T.; Patterson, whose only knowledge of his position consisted in the fact that he had authority and was the author of the tangle.

Now, everybody in the employ of the G. and T. knew that MacReady, who was as flint, would have dared the hand of God for the sake of Patterson. And Patterson had a habit of snatching up the

laurels from the brows of those below and replacing them with the dunce-caps that he himself had earned. That was the situation.

If Henderson had been a hereditary yardmaster, as Patterson had been a hereditary superintendent, it wouldn't have made any difference. That would simply have been a case of dog eat dog, and the best one win, with perhaps the rare good luck of both of them being eaten.

But Henderson had begun railroading as a section-hand, and, having worked like a horse for six years, he had won the promotion of foreman. Six more years, and they made him a track inspector. At that rate, he would have been a thousand years old before he got anywhere.

Of course, that shouldn't have made any difference. Henderson was only Henderson. Even if he had forgotten more about railroading in any five minutes of his railroad career than the average superintendent ever knew or ever would know; though he had a good brain, a good, brave heart, and the will to lay down his life in the day's work, it should have satisfied him to maul rail-spikes through all the years of his prime, and then wind up his days as a bridge-tender or a crossing flagman.

A man ought to be contented and keep out of trouble. But Henderson had not been contented. Having mastered the details of every job of which he could learn anything, he had spent years wondering why the deuce ignoramuses of twenty years' inexperience got to be heads of departments.

At last the day arrived, as it always will, when his knowledge came to his hand like forgotten money in a cast-off suit of clothes. He rectified an error of Patterson's that would have cost the G. and T. the loss of two fast trains and damage-suits for no telling how many human lives. Wherefore, on the day he was forty, he had become yardmaster at Bareen.

What that promotion meant to Henderson is not given all men to realize. His father was a cripple, and his mother old and worn out, and he loved a woman who returned his love and waited for him.

Of course, that was all nonsense. He could have sent the old people off to the poorhouse, and he and the woman could have lived handsomely on a track inspector's pay. Or he could have been an optimist and married, and the whole family could have got along swimmingly on his forty dollars a month, unless something happened to him, when all of them could have gone to the county farm.

As yardmaster, he was to draw better than a hundred a month. Was to draw, because as yet he had not drawn pay on the new job.

The blockade began the day after he had assumed his new duties. Now it was all swept away. He would be a dead dog the minute Old MacReady arrived.

He would be dead everywhere, too, for the newspapers had made a sensation of the blockade, and had featured it with photographs and interviews with Patterson. When the whole business was ended on the G. and T., his career as a rail-roader would be finished.

Whenever Henderson thought of the injustice of it, he wanted to take a claw-bar and beat the superintendent to death.

On the evening of the fifteenth day, Old MacReady got down from a high-speed engine in front of the switch shanty and began giving impossible orders.

"Take out those fruit-cars on siding twenty-four, and send them back east local."

Siding twenty-four was a switch of twenty-three, and twenty-three was full clear up to twenty-two.

"You mean," Henderson corrected, "to take out the junk in twenty other sidin's first, so's to git to twenty-four? What the deuce is to be done with them thousand-odd cars that's first got to be moved?"

MacReady knew that well enough, anyhow. Henderson should have bowed to the position and kept his mouth shut to the man. Positions are to be respected.

He got proof positive of it next morning. When he went up to the despatcher's office for orders, he received his discharge instead. And while this was being handed out to him he heard MacReady dictating an interview for the papers which would show that the blockade was the fault of the yardmaster alone.

Henderson walked down the alley between two lines of cars reeling like a drunken man. There are poisons that intoxicate more terribly than whisky, and of these he had drunk because he had been forced to drink.

Coming to a certain point, he crawled under many lines of cars, and came out on the edge of the yards opposite a little cottage that lay just beyond the right of way. It was his home that was not paid for. Now it would soon be some one else's.

He looked beyond the cottage, up the long slope on which Bareen the city stood. Bareen would be his no more, either. He went in, and his father asked him: "What will ye do now?"

Yes, what would he do? Henderson knew that when a man of forty loses his trade, he goes either to the scrap-heap of common labor or the dumps of crime.

Of course, that should not necessarily be true. A man should look on the bright side of misfortune. But he knew that he was deserving, and that he had been compelled to bear the stigma of another man's incompetence.

He knew that the good men who go down under the ignorance of fools in authority are numberless. The point of it pricked him to madness. He got his pistol and went back to the despatcher's office. Patterson, white-faced and sneaking, met him at the door.

"I've come to square things with ye," Henderson declared.

MacReady jumped from his seat at the despatcher's elbow and ran in between. "Square things!" he shouted. "You've tied the line, and now you threaten. I'll have you locked up."

"I never tied the line." The man that says I did is a liar!" And Henderson shook his fist in the general manager's face.

Now MacReady, for all he had the stubbornness of a mule, knew the difference between a bluff and a challenge. So he made a show of interest by asking, "Then who did do it?"

"You!" the answer came like a shot. "You done it! You put this dub in here when you knowed what he was. You knowed he wouldn't do. He made me shunt through freight to the back sidin's the first day, and he kep' it up."

"You knowed he was a fool who wanted all the authority coming to him, even to sayin' how the switchmen should trim and set the lamps. But that's neither here nor there."

"It's nothin' to me that he tied up the line. I couldn't help it. That was your fault, and more yourn than his. But lemme tell ye, it is his fault that he's laid the blame on me. He's a low-lived cur, and you that back him is no better."

As he choked out the last words, Henderson jerked his pistol and fired pointblank at Patterson's head. The shot went wild, but the fist of fighting Old MacReady went home on the point of Henderson's jaw.

"I'll have you in the penitentiary for this!" the general manager bellowed. "Johnson, call the police!"

Now Johnson, the despatcher, knew a great many things. This was his answer: "Mr. MacReady, if you arrest him, there'll have to be a trial. If there's a trial, the facts will have to come out. The facts will hurt. Patterson has ruined this fel-

low, and nothing else can be made of it. I'd have to swear to that."

Being mundane, the affairs of men consists in actions and corresponding reactions. Half the business of life with many people consists in keeping one set of facts



OLD MACREADY BEGAN GIVING IMPOSSIBLE ORDERS.

in the spot-light and the other set clear off the stage.

MacReady let go his hold on Henderson's arm and collar, disarmed him, and told him to make himself scarce. In exactly the same spirit the would-be slayer slunk down the stairs and down the gloomy alley of the cars toward home. He went into the house and, stumbling into his own room, flung himself down on his bed like a maimed dog come home to his kennel to die.

For a quarter of an hour he gazed dully at the wall, and thought of nothing but the cracking in the back of his head and the clutch of the unseen hands upon his throat. Presently the quavering voice of his father, repeatedly calling, aroused him. There was intensity in the old man's voice.

He listened for the words, and caught, "The yards are all afire!" With a kind of grim hope he jumped up and ran out. The yards were hidden under black clouds of rolling smoke.

A gust swept the murk toward him, and his eyes smarted from the fumes. He smiled, for it was pleasing to think that MacReady would have to answer for a thousand cars all turned to scrap and smoke. Then the gust steadied to a blast, and the paint on the porch pillar at his side blistered and crinkled in the driven heat.

He dashed into the house, and catching up his father, carried him to the street that led up the slope toward town. His mother followed him. They had not gone half a block when they looked back and saw the roof smoke and then burst into flame.

A fire-engine dashed past, going whence they had come. It was followed by dense crowds. But Henderson had not made two blocks when the same rabble came running back, and he heard them crying, "Bareen will be burned to the ground."

The thought of it caught and held his attention. Bareen, the town he had loved all his life, like him, was to be made a sacrifice to the folly of the fools who ran

the G. and T. As he hesitated, a city fireman came running by. Henderson grabbed him by the arm and demanded, "What are ye runnin' for?"

"It's a death-trap," the man under the helmet answered, "an' I hain't a goin' to stay to git burned up. The railroad com-

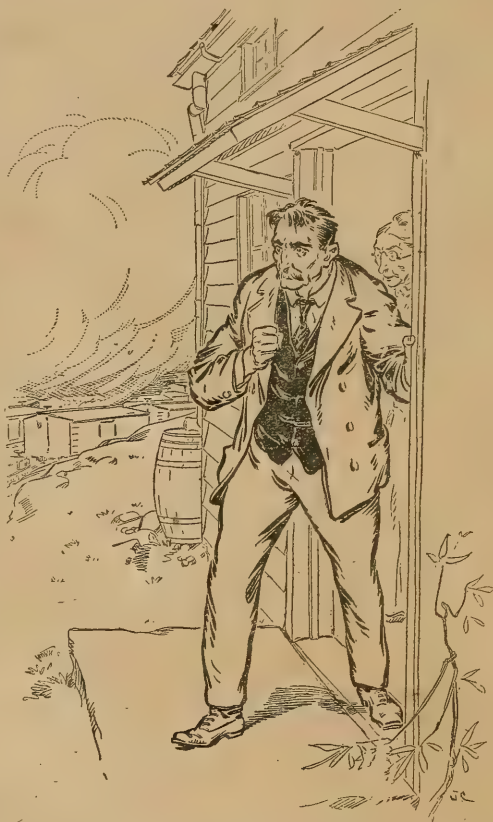
p'ny's in a row with their switch-in' help; and they can't git a wheel turned to move them cars. The town's a burnin' on this side. It's sure death to stay between." And the deserter hunched himself free and dashed away.

Henderson looked back where the smoke-clouds, lifting for a moment, disclosed that only the cars of the first siding were on fire. He beckoned a passing townsman and said to him:

"Mister, I'm a goin' back to bust that blockade. Will ye see that my ole daddy an' my mother are kept out of the way of the crowds an' the fire? If I don't make it back, they'll be some life-insurance comin' to 'em on me. I ask ye as one man to another'n, to see they git it." Before the other could answer, he was gone.

Back he sped through the surging crowds, and on past those devoted firemen who would run not. He saw that their playing streams burst into steam-clouds before they touched the walls, and he knew that the heat before him was yet more terrific.

He drew a deep breath and plunged on. He stumbled blindly through his own gate to the right of way, and he thought



MACREADY WOULD HAVE TO ANSWER FOR 1, THOUSAND CARS ALL TURNED TO SCRAP.

of it as the gate to Hades. He bounded down a burning alleyway that would save a quarter of a mile on the eternal way to the roundhouse, and came out at last with his clothing on fire.

Down the lee side of the inferno he raced like an Olympic runner in the first lap. But at the end of his course, where he should have received the cheers of switchmen, he got nothing but the mockery of locked doors and silence. The roundhouse was deserted.

Another man might have laid down. What could one man alone do? He could handle one engine and one string of cars, and while he was doing that six other strings of cars would be catching fire.

But Henderson had fought for six years to become a section-foreman, and a man who will do that lies down to no task the issue of which is to be had in half an hour. He caught up a coupling-pin and beat the padlock from the door of the first stall.

Inside, on the ribs of the fan-shaped floor, stood six engines, with fires all banked and steam in the boilers running low. He opened drafts, started injectors, shoveled coal, and then, taking a coal hammer, went outside and smashed more locks. By the time the last door swung open, the roundhouse was a pandemonium of screeching safety-valves.

One by one, he ran the moguls out onto the main track. Coupling them together, he shot down to the switch which opened off to siding one. The cars on that line had by this time been burning for so long a time that their beams and sills had sagged clear down to the rails. That string could never be moved, and he knew better than to waste time trying it.

He bumped onto the next switch, and looked down the windrow of fire. There was no use trying that one either. He was now well into the breath of the conflagration; yet he knew he must penetrate more deeply, and that the work, after he got there, would be work for more than man.

But he steamed on down to siding three, and, groping in the smudge, saw that the sills of the cars on that string were as yet intact, though all the woodwork above was in a blaze. He cut off his head engine, ran down the main line, and then backed up against the end of the burning car.

The skin of his hands and the hair of his head were gone when he finished that coupling. He got that string under way, and then opened his throttle to the last notch and jumped to the ground. That siding full of box cars went out of there like a snake on fire.

Henderson grinned as it went by, and bumped on down to siding four. That string was easier, for as yet the cars near the end had not begun to burn. As before, he coupled up, made a big head of steam, and, when he had the mogul under way, opened the throttle to the last notch, and, jumping off, watched that section of the conflagration speed off in the wake of the first.

After that, his breath came easier, for siding four was the last to open directly to the main line. Siding five opened from four, six from five, and so on all the way to twenty.

However, what had been done before was boy's play to what must now be done. It was necessary to run far back into the zone of the first of the fire, where the ember-spewing debris of sidings one and two threw out tremendous heat.

Now, when he backed his third engine down to couple in on the string on five, he knew there was no use trying it. But he hooked up and, of course, stuck. He got down, and saw that half the sills were already sagging to the ties.

Then a draw-head pulled loose, and he came bucking out with two cars. Two cars would not let him back to six. He slowed up and went back. No coupling could be made at all.

Now it was that Henderson yielded to the last frenzy of his purpose. He cut loose, went back to the main line, and hitched onto the other three engines. Having run them out onto the main line beyond the switch to siding four, he went back and set the other switches so that the main line ran direct to five.

Then he got aboard, and ran down the track for a quarter of a mile or more. There he stopped, and built such fires under those boilers as would make steam faster than any safety-valve could let it off.

This done, he crawled up into the cab of the head engine, reversed it, opened the throttle to the last notch, and then, as the giant went plunging back, he jumped

back and got to the next mogul behind. There he did the same thing. Then he made his way to the next one, and the next; and by the time he had reached the last one, the four moguls in tandem were sweeping back at forty miles an hour, and every boiler straining at its rivet-heads.

Henderson sat in the head of his battering-ram, and pulled his throttle-lever to the bracket to give her a little more steam. He was going to sweep that siding of its gutted cars.

Of course, only fools court death in such a fashion. But once in a while a fool jumps up, and the world for ten generations afterward wonders at him. The head tender crumpled the cab in which Henderson sat, but siding five started and went out, half of it dragging on the rails.

As for Henderson, some timber or something struck and flipped him back onto the coal. Old MacReady and Johnson, sitting at the despatcher's window, looked out and saw him lying there as the roaring skid of wreck toiled by them.

The two fell over each other going down the stairs, and raced like a pair of hounds till they caught the pilot of the last of the toiling moguls. Then they got aboard and shut down.

By the time they had the last engine under control, Henderson had regained consciousness. By that time, too, all the switchmen who had refused to go out under the boss appointed that morning had gathered around.

MacReady yelled at them: "Take these engines and clean out those yards. It's easy now."

But even if it was easy, not a man stirred until Henderson gave the order.

Nowadays, if you go anywhere on the G. and T., anybody can tell you all about Henderson and the Bareen blockade. They cannot tell you much about Patterson, however, for small men, like small coins, are soon spent and forgotten. If you will go to Bareen, you will either find Henderson in the superintendent's office, which he now fills, or else at his home.

N. Y. CENTRAL'S NEW PENSION SCHEME.

PRESIDENT W. C. BROWN, of the New York Central and Hudson River Railroad, lately announced that three of the railroads in the Central system would begin paying pensions to their retiring employees from the first day of this year.

The pension plan will affect about 100,000 of the employees of the Central and affiliated lines. It will involve the payment of about \$500,000 a year. Employees of the New York Central and Hudson River Railroad Company, the Lake Shore and Michigan Southern Railroad Company, and the Michigan Central Railroad Company, will be eligible under certain conditions for the pensions under the present plan.

Employees of the Pittsburgh and Lake Erie and the other lines of the Central system will not be eligible.

Under the plan, as adopted, employees on reaching the age of seventy years are retired. If they have been continuously in the service of the company for at least ten years immediately preceding their retirement they will be entitled to a pension.

An employee who has been at least twenty years in continuous service and has become unfit for duty may be retired with a pension, although he has not reached the age of seventy years.

The amount of the pension, as explained, is one per cent for each continuous year of service of the employee's average annual wage during the ten years before his retirement.

A conductor who has been earning \$1,500 during the ten years before his retirement, and who has been in the company's employ for twenty consecutive years, would thus receive twenty per cent of his annual \$1,500 salary, or \$300 a year, for the rest of his life. If the same conductor had been thirty years in the service he would get \$450 a year; if he had been forty years in the company's service he would get \$600.

A brakeman who had been earning \$900 a year for ten years, and who had been twenty years in the service, would get \$180 a year for the rest of his life.

A trainman who had reached the age of seventy years, and who had been ten consecutive years in the service, would get ten per cent of the average annual wage which he had been receiving during that time.

The pension system will reach from the lowest to the highest employee throughout the Central system. On January 1, 1935 men were scheduled to receive old-age pensions according to the plan.

THE DAM-BUILDERS.


BY BANNISTER MERWIN,

Author of "The Girl and the Bill," "The Sword of Tarroloys," "The Corner."

Friends Are Made, Enemies Discovered, and a Woman Has Her Way.

CHAPTER XIV.

The Other Half.

N the happy silence his lips met hers. His arms held her close. "Oh, I am so glad!" she whispered. "So glad!" And Jack could only kiss her lips again. But even in her happiness she could not long forget her errand. Hastily she told him what had happened—the decision to blow up the sluices, her fruitless effort to keep the men back.

"And then I went to the stable and got Freia and rode down to tell you," she ended.

Jack, by the light of the unbroken lantern, glanced at the leathery flanks of the mare. He observed, for the first time, that there was no saddle. He made no comment. She had done no more than he, knowing her, would have expected, but he shuddered as he thought of the risks she must have run, and he thanked God silently that she had come through safely.

A light was bobbing down the bridle-path. Larry and Mary were coming. They stopped, amazed, a few feet away, looking from the steaming horse to the picture of a strange girl, with golden hair, whose head lay on Jack's shoulder.

"Larry—Mary," said Jack, "this is Thekla Wist, who is to be my wife."

Thekla raised her head. She was neither timid nor embarrassed—just frankly happy. Jack briefly told the story that she had come to tell.

"You mustn't blame them too much," said Thekla earnestly. "They don't understand."

"I don't blame them at all," replied Larry. "I blame the persons who have lied to them."

His face looked very gray. He and Jack could understand now the full subtlety of Briggs's treachery. No such clumsy device as a strike was solely to be relied upon to make the work fail. The purpose of the strike was merely to get the workmen out of the way, in order that a foul blow might be aimed at the dam itself.

They both felt as though they should have guessed as much. In the case of a strike, with three days of leeway left to them, Briggs would know that they might pick enough men to finish the job on time. Of course, he would have some surer trick in his pocket, and it would be impossible to prove any connection between Thomas Briggs, the Denver capitalist, and the mad suspicion of a group of Norwegian farmers.

The end seemed to have come. What could they do to keep the men of the valley from the dam? To try to hold them back with revolvers would be futile and absurd. Two men could not guard all the sluices that dark night, and the Norwegians were not the kind to be easily frightened.

To reason with them? What good would that do? They had already shown that they were not amenable to reason. Yet, to meet them as they came, and to attempt to parley with them, was, after all, the only plan that could be followed,

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and, with no hope of success, that is what they decided to do.

Presently they heard the distant rumble of the wagons. Louder and louder it became, and Larry and Jack smiled at each other, and at Thekla and Mary, in a last grim effort at reassurance. Jack took out his broken shilling.

"If there is such a thing as luck," he said, "we're going to need it now."

"Hold on to it tight," said Mary.

"What is it, Jack?" asked Thekla.

"Just a lucky piece. Do you want to go to the shack, out of view, before the wagons come?"

"I want to stay here, near you, Jack."

He kissed her, without shame.

So the wagons came rattling around the nearest curve, and at sight of the barrier and the two men and two women who stood before it the driver reined in his teams.

"Let me start things," said Jack to Larry; "but be ready to get into the game if I make any breaks."

Jack, therefore, stepped forward and called: "Mr. Wist!"

The Norwegians were already getting to the ground, and at the sound of Jack's voice, Peter Wist shouldered his way to the front. His glance fell angrily on Jack. Then he saw Thekla advancing to Jack's side, and he started.

"Thekla!" he muttered.

"Yes, father!" she answered bravely.

"Wait, dear!" Jack whispered. Then he addressed himself again to the lowering man before him.

"Mr. Wist," he began quietly, "we know why you have come. There are not enough men in the camp to oppose you. But before you do what you have planned to do, I want to tell you something. I want you to hear the real reason why you have been made to believe that our company meant to injure you. That's a fair request, isn't it?"

Peter Wist did not answer at once. Outraged by what he considered his daughter's treachery, bewildered by the fact of her presence, he hardly heard Jack's words. How had Thekla, whom he had left at the house, managed to get to the dam ahead of the wagons?

Then Freia whinnied, somewhere in the darkness near by, and Peter Wist understood. He realized that the girl had

ridden the mare through the night, slipping by the wagons somewhere along the road, and had come at the risk of her own life to warn her lover against her father.

He realized that his victory over Jack Marly that afternoon in the field—was it only a day ago?—had been a sorry victory after all. He even realized that from now on Thekla was committed by her own act to consider her lover first, her father second. The pain of these revelations was sharp in him.

The men were beginning to murmur.

"Will you listen to me?" Jack repeated.

"To the dam!" shouted Ole Knudsen hoarsely. His dull eyes had flamed with rage at the sight of Thekla.

Others among the Norwegians took up the cry: "To the dam! To the dam!"

Peter Wist had felt no change in his resolution. He had himself been at the point of ignoring Jack and Larry, ignoring his daughter, and pushing on to the sluices; but unruliness among his followers was something that he would not brook. As they surged around him, threatening to hurry on without authority, he turned to them and ordered them back.

"Be silent!" he cried. "There is time enough. We will hear what this man has to say."

"Don't listen to him!" yelled Ole Knudsen, rushing forward. "Thekla has bewitched him! Come on, men!"

Peter Wist did not hesitate. One step, and his huge fist caught the oncoming rebel squarely on the mouth and sent him staggering back.

"There!" shouted Wist, stamping with rage. "Will you disobey me? Be silent, all of you!" He glared at his men. Two of them were holding Ole Knudsen. Then he turned again to Jack.

"Say what you have to say, but say it quickly," he ordered.

"Mr. Smith and I"—Jack indicated Larry by a nod—"own, between us, a half interest in this property. The other half is owned by Aaron Garth. Do you know Aaron Garth, Mr. Wist?"

"Yes, I know him."

"Do you know that he is a hard man?"

"Yes, I know that."

"To get the money to build the dam," Jack went on, "we had to mortgage this property to a friend of Aaron Garth's. We knew that we should not be able to pay the mortgage when it fell due, and he said that he would renew it, if—" he paused, to make his facts impressive—"if we would have all our work done by the date when the mortgage comes due. That date is one week from to-day."

"This has nothing to do with us," exclaimed Wist.

"Wait! We have found that the man who holds our mortgage is a bad man. He wanted us to think that he would renew the mortgage. He talked fair, but really he wants us to fail, so that he can foreclose the mortgage, and thus get possession of our property for a great deal less than it is worth."

"He has secretly interfered with our work. We have reason to think that he bribed our contractor to slow down just when we needed to hurry. We have reason to think that he hired a labor leader to come here and persuade the workmen to strike. To-night we are without laborers, and unless the dam is finished by next Saturday, Mr. Smith and I are ruined."

"Now, there is one other thing: we have reason to think that the rumor that we planned to flood your valley was started by our enemy, just to make you angry, so that you would do what you intended to do to-night. If you destroy the sluices, you will be doing his work."

"Is that all?" asked Wist. He seemed to be unmoved.

"Not quite! Mr. Wist, your daughter Thekla is going to be my wife. Do you think that I, bound to you by such a tie, loving her who loves you—do you think that I must stand for the flooding of your farm?"

Wist shrugged his shoulder.

"If you help to ruin us, our enemy will have possession of the dam. You will find him a worse man to deal with than we are."

Wist made an impatient movement. "You have said enough!" he exclaimed. "What we know, we know. You are the robbers and destroyers, not we. Come, men!"

They surged up about their leader, these vikings of the modern age. They

were hot and eager. The flames of their rage burned brightly. Jack, disheartened, stood back. He had done all that he could do. Even Larry, who had kept himself in the background, realized that no more could wisely be said.

But Thekla, with exalted courage, moved forward to bar the way. Jack drew her back. "Don't," he whispered. "It's no use. Let them go."

"Oh, they must not—they must not!" she sobbed. "For their own sake, too, they must not!"

Jack smiled sadly. "Luck is against us, dear," he said. "I had thought that there might be something in luck for us. See what I have held in my hand all the time." He showed the broken shilling in his left palm. "It did no good. Now, I will throw it away."

His motion was arrested. Thekla had clutched his wrist. With staring eyes, she bent over the broken coin. "Father!" she cried. "Father! Quick!"

Peter Wist involuntarily halted and looked. His daughter had snatched something from Jack Marly's hand. She was holding it up between her thumb and finger. Her eyes were wild with excitement.

"The other half of the shilling!" she cried. "The other half of the shilling!"

With a hoarse cry, Wist seized the coin and dropped to his knees beside a lantern. Presently he began plucking at his throat. He got hold of a string, and drew from its place of concealment under his shirt a small leather bag, polished smooth by years of contact with his skin.

Tremblingly he opened it and took out a bit of tarnished silver. Jack, bending down, saw that it was a fragment of a coin.

The two pieces lay together in the Norwegian's palm. He pushed them together. The broken edges fitted, to form one perfect circle.

Wist, closing his hand on the shilling, got slowly to his feet. His face was working strangely, and he fixed his burning eyes on Jack's.

"Where did it come from?" he demanded. "How did it get to your hands?"

"I found it."

"But where did you find it? Who lost it?"

Jack dreaded to speak. If the coin were an old token of friendship between Peter Wist and Thomas Briggs, the situation might be the worse for its discovery. Wist might realize, from what he had already heard, that to injure the dam would be to help the man to whom the other half of the coin had belonged.

Hesitating, Jack looked at Thekla. It would be a simple thing to say that he did not know who had lost the coin. Wist would not know that he really knew; Thekla would not know. But he could not look into her blue eyes and tell the lie, harmless though it seemed.

"Where did you get it?" Wist whispered. The man was tense with emotions which he was struggling to control.

"I saw a man drop it, and I picked it up and kept it."

"Who was the man? Who was he?"

"The man was the holder of the mortgage on this property—my enemy."

"His name! His name!"

"Thomas Briggs."

Peter Wist exclaimed aloud, and raised his shaking hand.

"Your enemy!" he cried. "Your enemy, and *mine!*"

CHAPTER XV.

The Turn of the Tide.

HIS hand grasped Jack's arm. "Your enemy—and *mine!*" he repeated. "My son, I believe you now! I believe you now! Back, men! We will not touch the dam! This man has spoken truth to us. He has proved it!"

His excited authority, his unusual vehemence, drove the Norwegians to wonder. They clustered around him curiously—among them Ole Knudsen, who evidently had accepted the leader's discipline, though from the row of his yellow teeth one was missing, where Wist's knuckle had struck. They muttered excitedly in Norse, for many of them had known the history of the token that hung about Peter Wist's neck.

Several minutes of confusion passed before Thekla was able to get her father's attention. At last, however, she pointed out to him that Jack did not know the meaning of this sudden change of heart. Then, tensely, Peter Wist told the story

in his clean, straight English, without faltering once.

"When I was your age," he said to Jack, "I came to the Western mountains to hunt for a fortune. I met another lad—a sharp-faced, wiry lad—named Thomas Briggs. We became friends and partners.

"Each of us had saved a few hundred dollars, and, putting the money all together, we went to a new mining-camp and opened a restaurant. We made much money—more than the majority of the seekers after gold. At the end of a year we had six thousand dollars hidden safely away.

"Thomas Briggs was an English boy. He had a shilling which he carried for luck. When we became partners, he broke the shilling into two pieces and gave me one, and we swore to keep them as tokens that we would be faithful to each other. I made this leather bag, and put my half of the shilling in it. Ever since have I worn it.

"Then the camp began to play out. The gold-hunters were drifting away. So we made less money, and at last we decided to stop our restaurant and go to another place.

"Then, when I woke up one morning, Thomas Briggs was gone. I went to the place where we had hid our money. The money was gone, too."

He stopped, and for some time busied himself with his own grim thoughts.

"I have trusted no man since," he added at last. "I have always worn my token to remind me that I must trust no man. Many years later, I found Thomas Briggs in Denver. He was rich.

"When I went to his house and asked him for the money he had stolen, he laughed. He said I could not prove that he had stolen it. So I struck him. He had his servants throw me out of the door.

"After that I wanted to kill him; but that would not do, and I tried to forget everything except that no man could be trusted. I went back to Minnesota, and many years later I came here. That is all."

A plain, bold story, but no less tragic for the brevity of its telling. A wronged man had nursed his bitterness for more than thirty years, while the man who had wronged him continued to prosper. Not

uncommon, perhaps; but in the slow revolutions of the wheel of Fate justice eventually is done.

CHAPTER XVI.

On the Dam.

THEKLA had drawn her father aside. They were talking in low tones—she, all eagerness, while he apparently listened at first with doubt and reluctance, and gradually began to nod his agreement with what she was saying.

She called to Jack; and when he had stepped over to where she and her father stood, she said: "The men of the valley will finish the dam for you, Jack."

"Can they do it?" Jack was amazed at this turn of the situation.

"We know how to mix cement and build walls," said Peter Wist. "If you will tell us where to lay the stones, we will place them as you wish."

Larry was summoned. His face lighted up when the news was given to him, but he shook his head disappointedly as he made a rapid count of the men available. "Thirty-five only," he muttered. "It would take fifty men five days."

"I can get more men," said Wist. "These can remain here—all except one. Him I must send back to the valley to look after matters there. You can give us the tents where your men have slept, and to-morrow morning we can begin work. I myself will go to my people at Larkin City, and they will help."

Thus it was ordered. Ole Knudsen was sent back to the valley. The other men took up the quarters which the strikers had left vacant. They were at first inclined to grumble, but the promise of high pay made them quiet.

Late into the night Larry talked with Peter Wist. He showed him the maps and charts. Without great difficulty, now that suspicion had been killed, he made it plain that the farms of the Norwegians were not to be endangered.

Meantime, Thekla and Jack wandered together up and down the lower road. The heavy clouds had been blown away by a wind, and the stars gave them light enough to see the gladness in each other's eyes as they said sweet words over and over again.

It was late when he took her up to the shack and gave her over to Mary. Nevertheless, he returned alone to the lower road, and for an hour retraced the steps he had taken with her.

In the morning the work began. The sturdy Northmen, adapting themselves to the more or less unfamiliar labor, went at it with a vim that raised the hopes of Larry. Jack had insisted on taking his place among them. Larry oversaw the work, with the help of Jones and Armsby and Ives, who had returned.

In the afternoon Peter Wist came back from Larkin City with the wagons loaded down with forty more Norwegians—all eager for the double pay. O'Neill had tried to stop them, but they would not listen to him.

So the work fared on through the early days of the week. The engines puffed, the great derricks swung their burdens into the air, and hammer and trowel clinked merrily.

On Monday Bill Murdock appeared, threatening trouble because Larry was using his camp outfit and his tools. Larry drove him off with a threat of a thrashing.

On Tuesday morning came Aaron Garth, with uneasy protests against the way things were going. The hint of a suit for conspiracy sent him hurrying back to town.

The same afternoon came O'Neill. At Peter Wist's command, half a dozen Norwegians left their work long enough to throw him into the stream, whence he emerged much sobered, to make his wet way down the cañon.

Meantime, course after course was laid on the dam, until when work stopped Wednesday night Larry announced that half a day would see all done.

Thekla and Mary had found plenty to do. On Monday Thekla had ridden up to the valley to get her medicine-case and her surgical instruments. Where many men are at work, accidents will happen, and she found considerable use for her rolls of bandages.

Mary supervised the camp kitchen, in which Wing Fah showed himself general and army in one. Indeed, there were no idlers in the camp.

Thursday morning the men streamed up to their work with evidences of the

excitement they felt. The spirit of the battle against time had penetrated them, and they were a unit in their interest and enthusiasm.

Overnight Larry had had the sluices closed, and the water was beginning to collect behind the dam; but even the widening lake between them and the valley did not arouse the dead suspicions of the Northmen. They were keyed to their fight to get the work done.

Stone by stone the last course was laid. The derricks creaked and groaned. The men grunted and panted. Stone by stone! And ever the lake behind the dam grew longer.

The sky was clear, the sun was hot, the sweat rolled down the faces of the toiling men, but they ran to and fro with exhausting eagerness. Three hours longer—two hours—one hour—

At half past eleven the last stone was ready to be dropped into its position. Larry—a relieved smile on his face—raised his hand.

"Jack!" he called.

All wet and grimy, Jack came forward.

"This is your job," said Larry. "You must lay the last stone."

Jack shook his head. "That's for you, old man. I'm only a private."

"But I insist."

"Then let Mary do it."

"If you say Mary and Thekla, I will agree," replied Larry.

Mary and Thekla, therefore, spread the mortar. As the stone sank into place, they stepped upon it, and the men broke into a loud cheer.

The dam was finished.

Jack and Larry threw their arms around each other. They had won. Thekla and Mary came to them, tears of joy in their eyes.

Half a mile down the cañon a dusty buggy was coming at a rapid speed. A large, uneasy man, a bunch of a beard on his chin, was urging the horse on with constant flicks of the whip. Aaron Garth never spared a horse—or a man, if he had the chance to drive him.

The man beside him sat with compressed lips. His hatchet-face was gray, as though he had slept poorly of late.

"What is that noise?" he asked.

"They are cheering."

"Oh!"

"It looks as though they'd done us, Briggs."

Briggs did not answer.

"I never knew luck to fail so. Giddap; there! We got those farmers all excited. They came down to blow things up; they remained to finish the work."

"And those that came to scoff remained to pray," muttered Briggs.

"What's that?"

"Nothing."

"What are you going to do, Briggs?"

"How do I know?" Briggs sighed faintly. "I'm not used to being beaten. Perhaps they have overlooked something."

"Guess we can't depend on that, Briggs. Giddap, there! We might have something smashed before Saturday."

"It wouldn't do us any good if the work is already completed."

"I hope you don't think we haven't been doing what we could at our end of the line."

"I think you were up against some better men, Garth. Oh, there might be ways of beating them yet. I could trick them on their bond issue, perhaps, but I don't believe it's worth while."

"What's that?"

"Never mind! The last time I was here I lost something that I had carried with me for years."

"Valuable? Giddap there!"

"Not intrinsically! But—" He became silent.

Garth jerked the foaming horse to a stand at the gate of the corral, but Madden had gone up to the dam, and Garth had to hitch the animal himself. Then the two men went slowly on, afoot. They could see the workmen standing in groups on the broad top of the great gray wall.

"Who are the two women, do you suppose?" asked Briggs.

"Larry Smith's wife, for one, the other I can't guess. Some friend of hers, I suppose. Smith and Marly are with 'em."

As the newcomers got to the top of the dam, Jack caught sight of them. He seized Larry's elbow and wheeled him around. "Great Heavens!" he exclaimed. "Look!"

Larry started. "Wist mustn't see him," he whispered, as he and Jack moved forward.

"How do you do, Mr. Smith—and Mr. Marly?" Briggs was cold and precise as ever. "I see that you have finished the dam."

"Yes," replied Larry coldly.

"I—I congratulate you," said Briggs. "You have done a big thing. I shall be glad to have you go in with me on my Utah enterprise."

Larry did not reply. The significance of his silence, however, was not lost.

A faint, ironic smile appeared on the capitalist's face, and he said:

"May I ask how you managed to convert the lions into lambs? How you induced the men who came to destroy your work to remain and finish it?"

"When you were here before, Mr. Briggs," said Jack, "you lost something."

"Yes?" said Briggs, wondering.

"A piece of a shilling, Mr. Briggs."

"Yes. Did you find it?"

"A lucky piece of a lucky shilling!"

"Yes. I have missed it."

"Well, Mr. Briggs, see if this explains anything to you: The leader of the lions who came to destroy our work is the man who for thirty-five years has carried the other half of that shilling."

"Peter!" gasped Briggs.

"Yes, Peter Wist," said Jack sternly. "And if you value your life, you will not let him see you."

"Where is he?" asked Briggs.

"He is back there with his daughter."

Swiftly Briggs darted away, straight toward his enemy. Larry and Jack followed on the run. They expected nothing short of murder. Briggs hurried to the place where Wist was standing.

"Peter!" he called.

The Norwegian turned like a flash. He towered above Briggs, and the embers of old rage blazed in his face.

"I have searched for you for years, Peter," said Briggs. "That night when I had you put out of my house—I wish you had come back."

"What do you mean?" Wist's voice was only a strangled whisper.

"I mean that then, when you had gone, I realized for the first time that things would never be right with me, until I had made things right with you."

"You are my enemy," exclaimed Wist, shaking free as Thekla grasped his arm.

"No, Peter, I am my own." There was no question of Briggs's earnestness. His hands were shaking; his voice was uncertain. "Believe me or not, you are the one man I ever cared for. When I wronged you, it hurt me worse than it ever hurt you, but not until you had been put out of my house that night did I begin to understand."

"Not until then, and I set aside the money I had taken from you. It has been growing all these years at compound interest. It is yours, Peter. I have done many things that were not worth while, but they all trace back to the wrong I did to you."

Peter Wist studied the face of his old partner. Long he gazed.

"I guess it is so," he said at last. "I have been happier than you, Tom—and I will be happier now if—if I forgive you."

Future biographers of Thomas Briggs, the money-captain, may not record it, but when he heard those words from the lips of Peter Wist, his eyes became wet.

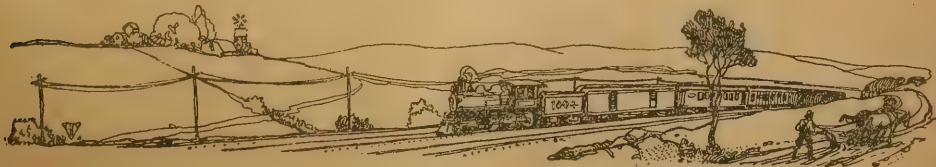
That evening, while the afterglow still tinged the sky, a formal, precise capitalist sat in long converse with a Norwegian farmer. And at the door of their shack, Larry and Mary, well content, gazed musingly down at the sturdy wall of masonry which stood for more victories than one.

"See Jack and Thekla down there, walking arm in arm," laughed Larry. "What children they are!"

"Dear," she whispered, "are we not ourselves children of that kind?"

And Larry's answer was to draw her closer to him.

(The end.)




Letters of an Old Railroad Man and His Son.

BY HERMAN DA COSTA.

No. 3.—HOW TO KEEP GRATITUDE AND PUSH ON THE RAILS.

Jim Gets a Chance to Shine, and Has a Good Time Proving that He Can, While Dad Gives an Illustration of Proper Enthusiasm.

JIM TO THE OLD MAN.

EAR DAD: Since I wrote you last there has been lots doing. Bigby, T. F.'s secretary, was taken ill some time ago and had to go home. He developed a case of typhoid-fever, and was laid up for over two months.

In the meantime, T. F. had to go out on the line, and you can imagine how surprised I was when Connolly told me I was to go out with him. Pleased! If I had had a couple of feathers in my bonnet I believe I would have floated away.

We went out for three days the first time. And say, dad, you talk about work! When I wasn't busy working, I was busy hunting up some work to do. When I wasn't busy hunting for work, it was because I was too busy working.

T. F. would give me dictation at the rate of a mile a minute while we were on the road. It's hard enough having to write at a desk in an office at that speed, and it was kind of piling on the agony having to write thirty to fifty letters in shorthand while the car was rocking and lurching about.

My notes straggled over the page from

the top to the bottom, but by some good luck I managed to read them all. Then I would buckle down to the typewriter and try to hit the keys that I wanted to hit while he was doing something else.

It's great having a private car of your own. T. F. had a brass bed in his state-room, and I had a big room all to myself—that is, when he wasn't calling me out of it. Nobody around to bother us; once in a while T. F. would talk about places he had been, and tell stories about the road.

I've been out with him a couple of times since then, and am beginning to get used to it. Connolly told me that T. F. said I was a pretty good stenographer.

I don't wonder people like him, dad. He's a man, all the way through. True, he cusses a great deal, but he doesn't mean cussing for anything bad; it's just his way of expressing his feelings.

People would come out on the line wherever we went to shake hands with him. Everybody called him Tom. Brakemen, engineers, firemen, section men—everybody knew him. There'd always be a crowd at almost every station waiting to see his car come in.

When Bigby came back to work again I was honestly sorry to leave T. F. and

go back to the office, even though it was hard work out on the line. It somehow felt different, although really it wasn't. But when you are alone with the general manager, you think he sees you can do good work, and you try hard to do better work than you usually do, so he will notice it.

I've settled down again now. But

that—trying to make me feel it was due to him that I had been raised—and I would have gone away feeling that he was lying, and that I got it because I deserved it.

Then, after a while, I would begin to think that the reason I got a raise was because they wanted me to stay with the road, and that they gave me part of what



"MAXWELL GRINNED. 'I'VE FOUND OUT I'M A MAN, AT LAST.'"

there's a surprise coming for you, dad. They've raised my salary! You know I started in on sixty-five dollars. Well, when Bigby came back, they put my salary to seventy dollars.

I commenced to thank Connolly for it, but he told me to shut up; I wasn't getting paid for anything more than I had done, and the road had done it, not he.

That's what I like about Connolly. He looks at things differently from most people. Some other man would have talked about me working harder, now that he had shown his confidence in me, and try to show him by my work that I deserved the raise, and a whole lot of stuff like

was coming to me in order to pacify me. All this because some chief clerk had talked as if he had done the whole thing.

You hear so much stuff like that here, dad. Up in the car service department, particularly.

There is a fellow up there named Maxwell. He worked for about ten years at a salary of about seventy-five dollars a month. One day he got a raise of five dollars. He almost fainted.

After he could think without his head going around, he went up to Claire, his chief clerk, and commenced to thank him for it, getting wilder each minute until he almost flopped on his knees. When

he got through, Claire commenced to talk to him about how he had recognized his ability by giving him the raise, and that he hoped he would repay his confidence in him by doing much better work than he had done.

He talked to Maxwell for about fifteen minutes in that strain, until Maxwell began to feel angry because Claire took all the credit to himself. When he got through, Maxwell turned on him.

"Mr. Claire," he said, "God has been mighty good to me in putting a man like you in this office. I used to think we had a superintendent of car service here, but now I see that I was mistaken."

"What do you mean?" asked Claire, feeling proud at the compliment.

"I mean this," said Maxwell. "I made an ass of myself slopping over to you that way. I thought you would see it was merely the surplus gratitude running over, and that it was intended for the road, not yourself."

Claire was at first astonished, and then he began to get angry.

"You are confounded impudent, young man," he yelled. "I guess you don't need that money, anyhow. Come to think of it, you'd better write out your resignation, and I'll accept it."

Maxwell grinned. "It's worth it, Claire. I've found out I'm a man, at last."

When Connolly told T. F. about it, T. F.'s eyes twinkled. I was banging away on the typewriter, and they didn't know I heard what they said.

"Good for the boy," said T. F. "He'll make his mark now."

"Will you take him back?" asked Connolly.

"Certainly not. In the first place, that's up to the auditor; if I did, it would make bad feeling."

Connolly nodded. "I know. Lots of men in that department are like that, but they can't speak up as Maxwell did because they have families to support."

"We only live this life once," said T. F. "Some of us try to make the best of it, but others try to change it to suit themselves. No man need put himself in that position if he looks at life through the right kind of glasses."

I have been saving up a little since I came here. Got one hundred and twenty

dollars in bank now; going some, isn't it? And yet, when I see so many young fellows right in the B. and D., who are holding down big jobs because they've got pull, somehow it doesn't seem fair to me.

When one of these fellows born with a golden spoon in his mouth comes along and takes precedence over everybody in the neighborhood, there's a feeling that the other fellows aren't treated right, and somehow they aren't as enthusiastic as they might be with their work, and are apt to find fault with the road they are working for.

It's only human nature.

Affectionately, JIM.

THE OLD MAN TO JIM.

DEAR JIM: You don't remember John Right, of course. He was way before your time. John's father was a farmer, who brought up his son farming. John never did like it, so one day he ran away from home.

I didn't see him again for five years, when he turned up again in pretty bad shape. He had tried almost everything, but was too honest with himself to stick at it. He told me he was going to search until he found the kind of work he wanted to do.

I laughed at John then; for I figured if a man had a job, it was better to hold on to it, and make up his mind he wanted it, than to give it up and try for something he didn't know anything about.

Well, anyway, John drifted off again. In the meantime, I had gone with the B. and D., and was in charge of the roundhouse at Cumberland. One day I was up in Chicago, on a vacation, when I plumped into John on the street. He was looking pretty prosperous, and, after we had talked a while, I asked him what he was doing.

He said that he had at last got something to do that he liked. He was a reporter on a newspaper. He'd been with the paper for two months; but the way he talked about the newspaper business made me feel as if I ought to take off my hat whenever I bought one.

He had me believing before he got through that it was the holiest kind of an enterprise that had ever been set up in

the public market-place, and was the voice of a free people speaking out when everything else on earth was deaf, dumb, and blind. And just about ten minutes before I met John I was cussing them for being the yellowest, meanest bunch of liars that ever hit the pike.

Well, anyway, I was mighty glad to hear that John had landed at last, and I got him to take me up to his office. It was a big room, with a row of desks around the wall, and typewriters scattered about.

There was a bunch of young fellows in it, smoking and writing, and John made me sit down in a corner of the room with him and talk over old times. While we was sitting there, somebody in another office hollered something, and John jumped up and rushed away. In a minute he came back.

"I've got an assignment, Billy," he says. "Come along with me and see how a reporter gets a story."

I had a little time on my hands, and thought I might as well use it up that way as any. I hadn't yet got over my surprise to see John doing that kind of work.

Well, at any rate, we moseyed around, and John talked to several people about something or other, and they sent him to other people, who talked about it another way, and finally I went back to the office, and he pecked away at a typewriter for a little while and turned in his story.

We were sitting, chatting, in a corner of the room when a man came out of an inner office. He had a piece of paper in his hand.

"Where's Right?" he bawled. Then he saw him. "Look here, Right," he said, "what do you call this?"

John got red, but stood up. "What's the matter, Mr. Martin?" he asked.

"Matter!" yelled Martin. "What's this stuff you wrote here? Do you call that a news story?" He shook the piece of paper in his hand at John.

"I don't see anything wrong with this, Mr. Martin," said John.

"Of course you don't!" yelled Martin. "What you ought to do is to go back to the farm, instead of working for a newspaper."

Well, sir, that would have made any man mad. I know I clenched my fist myself, and wondered whether it wouldn't



be a good idea to give him a punch for luck. John walked to the door and flung back his head.

"I'll tell you this much, Martin," he said. "I'll be managing editor of this newspaper when you will have to go to work on a farm yourself to make a living."

That was piling it on strong, wasn't it? Chicago was a mighty big place, and John was a mighty small ant in it. But John had enthusiasm. He loved his work. He wasn't in it for money as much as for the liking he had for it.

He stayed with that paper until the week was out, then he went with another

newspaper. He worked with them for about two years, and finally began to turn in work that was the real thing.

Then a reorganization of the paper came, and John was made city editor. He held that job about four years, and went on another paper in a higher position, stayed with them for a while, and finally darned if he didn't get the offer of managing editor of his first paper!

In the meanwhile, Martin had gone on another paper, and also had been made managing editor of that; but just about the time John got his big job, Martin's paper changed hands, and Martin was thrown out of work.

I was in Chicago again then, and dropped in John's office at the time it happened. John had dictated this letter to Martin when I came in:

MY DEAR MARTIN—Fifteen years ago you told me that I ought to go back to work on the farm, instead of working for a newspaper. I now beg to inform you that I am owner of a farm in southern Illinois, which is in good shape, and well kept.

As you are no doubt looking for work, I offer you the position of superintendent of it. You should be able to make a fairly good living from it, if you are competent enough. Please let me hear from you promptly. Sincerely, JOHN RIGHT, Managing Editor.

I didn't see John until about a year after. Then he told me that Martin had got furious when he received the letter, and had sat down and wrote a note to the owner of John's paper, who was a personal friend of his, enclosing the letter, and requesting that John be fired. The proprietor of the paper simply referred the note to John, and it ended there.

The beauty of this is that it's true. And the particular point I want to bring out is that enthusiasm got John the position of managing editor. True, he had to have something besides enthusiasm. He had to know the business. But he would never have known it if he hadn't had the enthusiasm.

There were probably three thousand other young reporters like him in that city, some with influence, some without, but the majority of them with a better education than he had. It was simply a

case of a man finding the work he liked best, and making good in it.

To-day, John Right is managing editor of one of the cleanest newspapers in the country in a city not two hundred miles from Chicago, known from one end of the country to the other, and one of the most popular men in his city.

You say that that's not railroad work? All right, then. I'll tell you about another John. This John was named Dickerson. Pat Niff, in your office, knows him well; for Pat was holding down the wire at Martinsburg when Dickerson was superintendent of the I. and F. Central division.

In those days the B. and D. was being managed by a bunch of men who knew as much about railroading as a cat knows about singing. They had rolling-stock out on the line, standing on sidings months at a time.

Engines were tied up on branch lines, freight-cars were getting lost and wandering away; and, altogether, the old B. and D. was in about as bad a position as any road could be and not go in the receiver's hands. Finally it got so bad it did go in the receiver's hands.

The man who managed it then was named Murray. His initials are O. G. As soon as he was appointed receiver, he sent a telegram to John Dickerson, of the I. and F., to report for duty at Baltimore.

Dickerson had a mighty good job at the time, for he was one of the best all-round men in the country. He declined to come. That must have got the Old Man's dander up, for he sat down and wrote this to John Dickerson:

MR. JOHN DICKERSON:

I wired you the position of general manager of the B. & D. ten days ago, and you have declined it. I now offer you the position at double the salary previously offered, payable in advance. Do you want it? Answer quick.—O. G. M.

Now, John Dickerson was a pretty shrewd man. He had been watching the B. and D. for a long while, and saw that the real fault with the road was that the higher officials had tried to meddle too much in the actual running of it, and there had been a good deal of "favorite sons" placed in fat jobs without regard



HE LEFT JOHN DICKERSON TO RUN IT, AND JOHN RAN IT.

to their ability to run it. So back came this wire to the Old Man:

If you will place me in entire control of the road, with authority to discharge and appoint whom I may see fit, without any one being given power to cancel my orders, I will accept.

It took O. G. M. about three minutes to answer that. And all he said was, "Come." Well, John came.

The first thing he did, he fired the general superintendent of the eastern division, the general superintendent of the middle division, four superintendents, six trainmasters, two yardmasters, and about fifteen other officials.

But there was a Man in the receiver's chair. He just kept on going after money to finance the road, and left John Dickerson to run it. And John ran it. He sent to Pittsburgh and got two of his old men there, got three more from the Pennsy, and gathered about two more in. The rest of the positions he had open he filled by promotion.

And then the rolling-stock began to

move. John was up and down the line, night and day. He left a trail of enthusiasm behind him wherever he went. Engines began to move. Passengers began to come. Freight began to pour into the terminals. John was everywhere, and his men worked with him like all get-out.

The Old Man, up in New York, fighting hard to get money to keep the road alive, began to find things getting easier. From being known as the worst road in the country, the B. and D. began to be known as "not so bad, after all." It was hard to live down the reputation that had been put on her—in fact, to this day, it's a joke in Pittsburgh that if you want to leave there the worst way, you must take the B. and D.—but she fought up, and pretty soon began to show her head once more and perk up.

John fairly made things hum. If a man worked hard, good. He was right in line for promotion, and got it, too. If he wasn't able to work hard, out with him.

John Dickerson put life into the old road when it was fairly at its last gasp.

He did what any other railroad man in the country would have declared impossible. He did it because he was enthusiastic. He knew the B. and D. was the natural outlet for one of the best sections of coal and grain country in the United States. The rails were there, and the rolling-stock was there.

Well, sir, the annual directors' meeting came around. It was just a year that John had been with the road, and in that time he had set it on its feet again. True, it was still a trifle unsteady; but before he came, it was ready to have prayers said.

So the board of directors, in solemn conclave assembled, decided that John Dickerson should be written a letter commending him for his excellent management. They composed a letter that read like the Declaration of Independence. Each man signed it, and it was mailed.

John was out on the line, as usual, when his mail came in. They brought him the big letter with its red seal, and

John tore it open. He read it over carefully, laid it down on the table, picked up a big blue pencil and scrawled over the letter in big characters, then put it in another envelope, and mailed it back to the dignified board of directors.

The secretary of the board received it, and opened it in the presence of the other directors. John had this scrawled over it:

We are knocking merry Hades out of them.
JOHN DICKERSON.

Only it wasn't Hades. Should you ever go in the president's office, look over the old man's desk. That letter is hanging over it in a frame, and, straggling across, the embellished words in blue.

Look at it, Jim. It's right to the point. It showed what a man did with his enthusiasm, properly directed.

Your mother says to send her your picture. Don't let your dignities make you forget the folks at home.

Your affectionate FATHER.

LITTLE RAILROADS OF WASHINGTON.

OFFICERED like a South American revolutionary army is the Southeastern Railway Company, operating the shortest railroad in the State of Washington. In its statement for the year ending June 30, 1909, just filed with the State Railway Commission, it reports six general officers, one general clerk, one station agent, one engineer, one fireman, one conductor, three trackmen and a section foreman. The line is four and three-tenths miles in length and runs from Kangley to Camp Five Junction.

The report states that the clerk drew a salary of 68 cents a day, as against \$2.23 a day for the trackmen and \$2.97 for the conductor. The engineer worked forty-one days during the year, and the fireman put in nineteen days, while the general officers worked 360 days. One general officer drew salary at the rate of \$1.66 a day.

Under the heading calling for a report of "important changes during the year," the report says: "Mileage decreased nine-tenths of a mile by abandonment of line from Camp Five switch to end of track."

The total cost of the railway and equipment to June 30 last is reported at \$125,121, which includes \$4.82 for right of way and \$3.50 for stationery and printing.

The road carried 328 tons of freight and

no passengers. Its total revenue from operations was \$364, while the operating expense was \$2,985 and \$648 for taxes, making a loss of \$3,270 for the year, but this was cut down by the receipt of \$795 for rent of the company's locomotive to a logging company.

The company was organized September 13, 1906, and the directors are W. M. Ladd and Edward Cookingham, of Portland, John Bagley, J. G. Dickson and E. M. Hayden, of Tacoma.

The North Yakima and Valley Railway Company, operating fourteen miles of line between North Yakima and Naches, Washington, west of Spokane, carried 39,640 passengers and 19,482 tons of freight during the year ended June 30. The revenues amounted to \$36,150, while the operating expense was \$20,373 and taxes \$1,012. The company expended \$367,000 on construction and equipment on the line. Its net profit was \$19,360, or \$13,669 less than enough to pay the interest charges on the capital borrowed to build the line. Its equipment consists of one locomotive, two coaches and two freight-cars.

The main line and branches tap the commercial apple and fruit districts in the Yakima country, where the United States government has three large irrigation plants.



SHE REACHED A PLACE WHERE JUMPING
WAS HER ONLY RESOURCE.

BARBED-WIRE CHIVALRY.

BY KATHARINE EGGLESTON.

**Proving That Woman Can Win In a Scrimmage,
Even If There's No Bargain-Counter In Sight.**



"COMPRESS your gills, you sardine! Don't you take any liberties in breathing unless you can do it up-and-downward!" Bill Bellows hunched over against Frank Storrs as he spoke.

"Aw, what's hurting you? How much of this train-lid have you bought?" Storrs asked gruffly.

"We're a crowdin' the lady," Bellows whispered as he snuggled closer to Frank.

Instantly Storrs gave up the room he had been contesting and cultivated a dangerous intimacy with the edge of the box-car roof; then stretched his neck to see across the back of his very near neighbor.

"The lady" was lying flat on her stomach, just as the men were, her feet toward the middle of the car and her

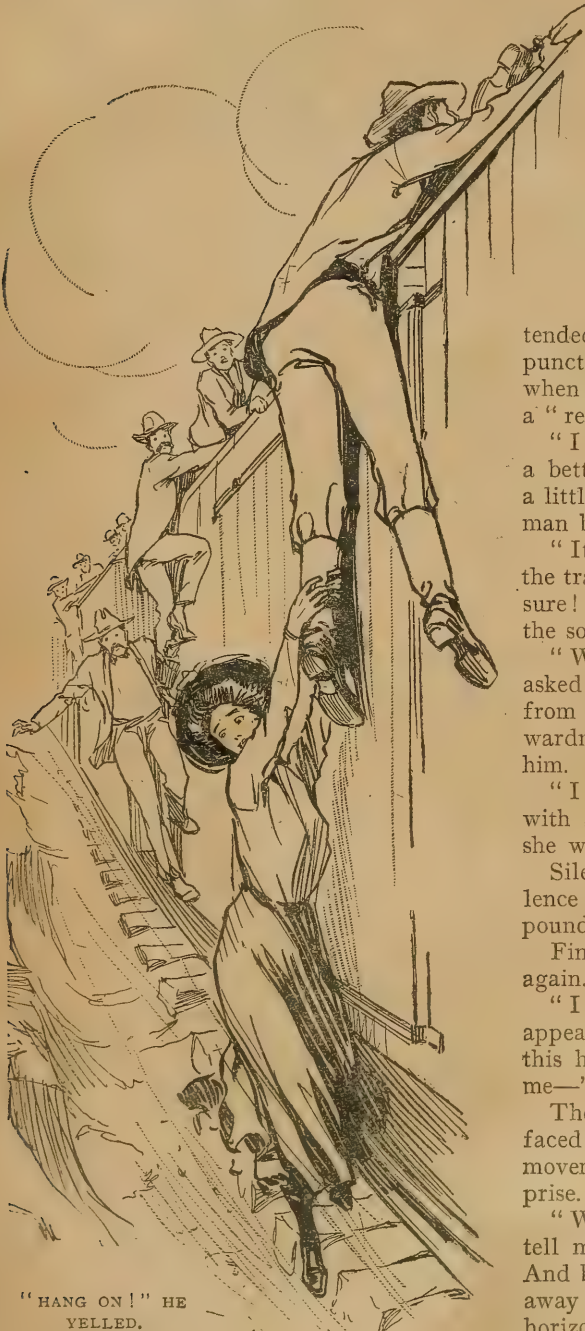
head raised as she looked out across the brown and red of the prairie.

She was the only woman who had dared to mount to the car-top when the inside of that and all the other cars refused to hold another person. A look of admiration passed between the two men. It was a tribute to her nerve.

The train bumped along the newly made track, which had been laid to accommodate the home-seekers who were making the run to secure possession of the claims in the territory the government was opening up for settlement. For a month, wagons and horses, carts and burros had been coming to the border of the new country and stopping there to await the signal for the scramble for claims.

But the woman on the top of the car

was an unexpected development, even in this time and place of the unexpected. She was pretty, too, with sweet lips and calm, soft eyes, the kind of girl who would have looked in place sitting on a veranda embroidering a doily.



"HANG ON!" HE
YELLED.

Yet, here she was; and the two men who made room for her liked her all the better for looking like that and having the courage to shin up the side of a box car and take chances.

"You're makin' the run?" Bellows asked by way of opening up conversation.

"I'm letting the railroad do it for me," she answered as she stretched a little to absorb the extra space the men had given her.

"They ain't goin' to do more'n a half-way job, you know," Storrs volunteered.

"Yes, you'll have to finish on your own—um." Bellows swallowed the word he had intended to say with the exaggerated punctiliousness of the frontiersman when he talks to a woman he thinks is a "real" one.

"I wish they were wheels; I'd stand a better show," the girl said, smiling a little at the embarrassment of the big man beside her.

"It'll be a grand scrimmage when the train stops and we all light out, for sure!" Storrs observed, not wanting the sociability to come to an end.

"Which way you goin'?" Bellows asked after he had rescued himself from the depths into which his awkwardness of speech had precipitated him.

"I haven't decided," the girl said with such brevity that Storrs thought she was offended.

Silence fell, if it can be called silence when a heavily laden train is pounding along protestingly.

Finally Storrs found his courage again.

"I don't want to be cuttin' in and appearin' to try to boss; but I know this here land, an' if you wuz to ask me—"

The girl turned her head; so that she faced him, with such a sudden, eager movement that Storrs stopped in surprise.

"Well, I do ask you! I ask you to tell me what to do. I'm anxious—" And both of the men turned their eyes away and looked along the rolling horizon line as tears gathered, and her

lips trembled and stiffened as she tried to control them.

"I'm so anxious to get a good claim. We haven't any home; and I've paid almost every cent we have to register, and if—if—if I should be crowded out, or not get a claim, or—or anything, I'd—"

"Well, you won't be crowded out or not get anything. You jes' run our way. We'll start you right," said Storrs.

He and Bellows had hunted through the Indian Territory and the Panhandle, had traded with the Indians and ridden in the round-ups till the country was an open book to them. They knew just the claims they meant to stake.

They would lose no time, but go straight as the crow flies to the land they had decided to get and settle on. A home loomed large in the minds of both. They had knocked about till the edges that they had bumped into began to make them a bit sore and cause them to long for quiet and certainty.

Both felt for the little woman beside them. She was out after the same good thing. Just a little woman, quiet and sweet and weak, making the run that would probably test even their strength and endurance. Each of them registered a vow to help her win.

With a great grumbling of wheels and a shrilling whistle that was like a command to get off, the train began to slow down.

Moved by the impulse to get a good start, the whole sardine-like arrangement of men swung about till their feet shuffled and felt about the edge of the car roof over which their eager faces had stretched a moment before.

The little woman was turned about with the mass of humanity. Lighter than the others and less muscular, she could not keep herself safely poised on the flat roof. Before Bellows could get himself adjusted and look to her, she was pushed over, and, grabbing frantically at anything that promised to arrest her fall, she seized his big-booted foot.

"Hang on!" he yelled, realizing the predicament after the first jerk as her weight nearly dragged him from the car.

He followed his own instructions. As he slid off he seized Storrs's legs.

Storrs, surprised by the maneuver, hurled an indignant protest at his captor.

"Turn me loose, you coyote!"

But the coyote was dangling uncertainly in space, hitched firmly at one end by the desperate clasp of the nervy little lady and anchored with a finality that left Storrs no choice to the pair of boots above him.

Storrs felt himself going over the edge. Seizing a pair of legs that offered a last chance, he, too, swung down from the car-top, feeling the outraged kicks of his victim subside as he got busy with the top end of himself and sought the same leg route to safety.

Down from the car-top the human chain depended. The men crowded on the iron ladder at the end of the car, yelled and cheered. The little lady looked down. She swung a short distance only from the ground. Bellows felt the weight on his legs removed. She landed lightly and safely on the soft dirt along the track side.

The train was stopping. Bellows let go. The little woman saw a dozen eager legs adjusting themselves to spring to the ground and set off in the race.

"Which way shall I run?" she cried, shaking Bellows's arm in her excitement.

"That way," he pointed. "Run like the—*the dickens!*"

Her soft eyes, looking up into his with perfect trust, made him gulp again at his linguistic extravagance.

"How'll I know when—" she began.

"I'll yell, Git!" he commanded.

The loyalty that had made him cling to Storrs, and Storrs to him, through greaser fights and empty cupboard days caused him to wait till the dragging chain of men had brought his friend to safe dropping distance.

As soon as a point was reached where Storrs could cut loose from his hold on the upper man's legs without running the risk of breaking his own, Bellows sang out:

"Leggo, you Indian! You're on *terry fermy!*"

He ran ahead to where Storrs landed. Together the two swung about and paused for an instant to get their bearings. Poised on the top of a ridge of dirt thrown up along the railroad track was the little lady. She waved her hand to them.

They plunged forward toward the

ridge. She shot down the other side. When they reached the top and had a chance to look beyond, she was scudding over the prairie like a big brown rabbit.

"Jumping jehu, look at her go!" Bellows cried in a burst of admiration.

"Follow the leader!" Storrs yelled as he stretched his long legs and set off.

The train had come to a dead standstill. The mob had poured out of the doors to fall under and over the dropping load from the tops of the cars. Screams of fright, of anger, of derision, made the prairie that had never known more than the shouts of the cowboys and the bark of the coyotes a pandemonium of human noises.

Bellows, glancing back, saw the ridge of earth change to a pyramid of people. The race was on! Out the crowd streamed, covering the brown plain with a motley lot of plunging, puffing, swearing, sweating creatures who made the prairie-dogs scud into their holes and lay low.

The flying feet ripped the brown skin of grass from the red soil till it looked as if the whole land bled under the lacerating heels.

Out ahead, skimming as lightly along as if she had borrowed wings from the sweeping wind, ran the little lady. On she went, till her brown figure became a sort of focus for the eyes that stared toward the promised land.

Bellows and Storrs pelted along in something like proximity; but she fitted before them at a distance, and so the directing yell that was to tell her where to stop was lost in the racket and roll of the voices behind.

Suddenly a barrier appeared to leap out of the ground. Some far-seeing cattleman had set up a barbed-wire fence that seemed to her eyes to stretch from chaos on one side into eternity on the other.

She glanced over her shoulder. The pounding mob was coming. Fleetness of foot was her only advantage. She would lose the benefit of that if she stopped to find an opening through the fence, and the lowest wire was too close to the ground for her to roll under.

Gathering her short skirt as tightly about her as she could, she dashed at the fence.

"Good guns, she's going to climb it!" Bellows cried, with a sickening memory of the torn sides of horses, the bleeding flanks of cows that had come in contact with the wire octopus.

Already she was putting her foot on the lowest wire. She had climbed up the freight-car; this looked comparatively easy, as her modesty could not make her shrink for the feat when the crowd was so far behind.

She felt the cold prick of a barb in her hand and sought a more satisfactory hold. She had managed to get to the top of the six-wire fence. Shaking and swinging on her uncertain footing, and obliged to disregard the prongs that were gouging into her hands and body as she pulled herself up, she reached a place where jumping was her only resource.

Unable to take any notice of her skirts with her hands and feet so fully occupied, she lifted herself to spring. The fourth wire, on which she stood, vibrated crazily. The fifth wire bit and dug at her knees; and the top wire, by which she tried to steady herself before jumping, wobbled up and down under the uncertain pressure of her hands.

Just as she prepared to spring, a shout from the rear assailed her ears. It had the effect of sending her forward desperately. She scrambled frantically to regain her balance. The effort entirely killed the little momentum she had. She turned a half hand-spring, and landed in a heaped-up tangle of skirts and loosened hair on all the barbs in her immediate neighborhood.

Madly she tried to drag herself loose. She dropped her whole weight, hoping to tear herself down from the wires. Blood streamed from her torn hands; and, by the merest chance, she kept her face from being scratched by the trembling top wire.

One who has never had an experience with a barbed-wire fence can scarcely picture the tenacity of the hold with which the wire demon clutched her.

The big hope that had buoyed her in overcoming difficulties died as she hung there. The horde behind would sweep by her. All the land would be grabbed. She would be left, a bit of driftwood on the sea of the prairie that every one but herself would have some claim upon.

The thought of the two men to whose kindness she had owed her comfort on the car roof, and especially of the one whose good left leg had saved her from a bad fall, came to her now. If only they would come to pick her off this terrible trap!

The two men were coming, running with renewed vigor as they saw her arrested, a captive of the barbed-wire fence.

Then the little lady began to wonder if they would extricate her. They, too, were running for a home. They had entered the race to win. They were quite justified in looking on her as an obstacle in their way removed—or, rather, held up, by fate for their benefit.

Would they loosen her from the torturing fence? And if they did, what show would she stand when the great crowd swept down upon her? Tears of discouragement ran down her cheeks.

Bellows was wasting his breath, swearing with every step he took.

"It's that white-livered half-breed's done this! Thinks he'll turn the pack off the scent of the good land beyond, so he can wiggle his dirty carcass onto it!" he growled.

"Shut up your steam-box and run!" Storrs ordered, showing the worth of his advice by leaping ahead of his comrade.

He dashed on toward the fence. Another minute and he was working with might and main to free the dress, the hair, the flying ends that seemed to have grown all over her.

"You—you mustn't let me loose!" she sobbed hysterically. I—I might get the very land you want. I might take your claim."

"Guess they's enough to go round—the whole passel's got to," he added, as he saw the mob sweeping down toward the fence.

Bellows came up to the other side just as Storrs gave up trying to work through the wires and climbed over. Between them they pulled and tore the little lady free.

Storrs's bleeding hands bore testimony to his efforts; but the little lady lifted her soft eyes—the tears making them softer still—to Bellows's face and thanked him.

"I ain't done nothin'," he disclaimed, with a gratified flush showing through his bronzed skin.



THE RACE WAS ON! OUT THE CROWD STREAMED, COVERING THE BROWN PLAIN.

The rage of the crowd rose in a roar as they came on the formidable fence. A few of the hardier ones tried to climb, but most of the land-seekers knew barbed-wire fences and respected them. The race swung about as the crowd scurried like a huge herd of giant jack-rabbits along the wires, seeking an opening.

"Look at 'em! Scared cats! We've got it our own way!" Bellows gloated.

And they had. Only a meager few had managed to get up and over the fence with much satisfaction to themselves; and now they were running out toward the land that was obviously richer and better.

"Go it!" Bellows shouted to the girl as the advance runners came closer. "Go it good! We'll give you a handicap—er—won't we, Bill?"

Storrs nodded.

"Oh, no! I couldn't let you! You've been so good. It's not fair!" the little lady objected, standing on ceremony in the tattered remnants of what had been a very neat and serviceable brown dress.

"Light out! Don't be a—lady!" Bellows shouted, his eyes on the foremost of the claim-seekers.

Storrs shuddered at the temerity of his friend. He spoke as if the little lady were just an ordinary woman. And, to his relief, the little lady seemed rather pleased than otherwise.

Off she shot as if Bellows's command had been a key to set the mechanism of her body in motion.

"Hurrah! Leg it! Leg it!" Bellows yelled, with forgetful but genuine enthusiasm.

"Shut up, you eejut!" Storrs warned.

At the instant a long-legged, air-splitting figure shot by them, the head of the fence-climbers.

"Hike!" Bellows shouted to Storrs.

The race now had narrowed down to themselves and the sandpiper whose marvelous strides measured off space with clockwork regularity. Bellows hated the man and his red goatee before he had run a half dozen yards abreast of him.

The pine pegs that marked the corners of the quarter sections showed now and then a bit more freshly yellow than the drying grass.

Bellows was wrathful at the man who ran him just a little better, making with

each stride a slightly perceptible advance. Storrs looked ahead at the little lady.

She had come to a place where a fringe of stunted willows and a few mesquit trees indicated the bed of a dry creek.

"Stop! Hold up!" Storrs sang out, making a megaphone with his bony hands.

On she flew, quite too intent to realize that she had reached a good place.

"Hi!" Bellows shouted.

The red-bearded man diverted his thin body for an instant from its straight line of procedure and planted a jab with his sharp elbow in the neighborhood of Bellows's fifth rib.

"Mind your business!" he said.

"You—" Bellows snorted, as he squared off to return the compliment to advantage.

"Aw, cut it!" said the red-bearded runner, as he made prompt use of the slight advantage Bellows's pause gave him and struck out at a quicker pace.

Bellows was too mad to think of a claim. He set off after the man with a purpose that gave wings to his feet. But the kangaroo-creature had incentive, too, the kind he carried always in large quantities—self-interest. His eyes were fixed on the small, brown figure that had stopped at Bellows's call just as quickly as it had set off at his command.

His shrewd sense that smelled out everything to his own interest told him that there was a good reason for Bellows's warning cry. He glanced about at the prairie and saw the greener grass, the fresher foliage that indicated the presence of water at a more recent period than most of the land he had run over had enjoyed. His running mate evidently knew the lay of the land, and was giving the little woman the benefit of his knowledge.

Gathering himself together for a supreme effort, the man hurtled forward with a speed that dropped Bellows behind after two leaps.

Bellows, losing ground, and Storrs still further behind, saw him come up to the little lady. They could see that he was waving a dictatorial forefinger, and that she was shaking her head decidedly.

Then, from the angry motions and the wildly waving red goatee, they could

tell that the red-bearded man was saying a good deal. Bellows imagined that he saw the nervy little woman shrink. He yelled to Storrs:

"Chase!"

Both men dragged the fresh air into their lungs and rushed forward at top speed.

The little lady turned to them eagerly. They stopped, panting, beside her.

The woman sent a glance that would have shriveled any but the atrophied pride of the man she faced.

"I'm not your wife, Ezra Innes," she asserted.

"You ain't got your decree, Mirandy," the man gloated. "I guess these here gentlemen ain't so perlite that they'll try to run yer husband off his wife's land."

"Oh! You—you—" The wrath of



"HE'S TRYING TO MAKE ME GIVE UP."

What's up?" Bellows demanded.

"He's trying to make me give up," she answered, the tears coming.

"You skunk!" Bellows cried, facing the tyrant. "This here land's her'n. We seen her on it before you'd come within hearin', didn't we, Storrs?"

"You bet!" Storrs seconded.

"You'd better make tracks," Bellows advised.

The red goatee quivered, as the owner of it laughed.

"You two air some kind. This here is my wife, an' I guess I kin stand to let her git this claim—if you insist."

If Storrs had not been too busy with his own amazement, he would have described Bellows as completely flabbergasted. Staring from the man to the little lady, Bellows was speechless.

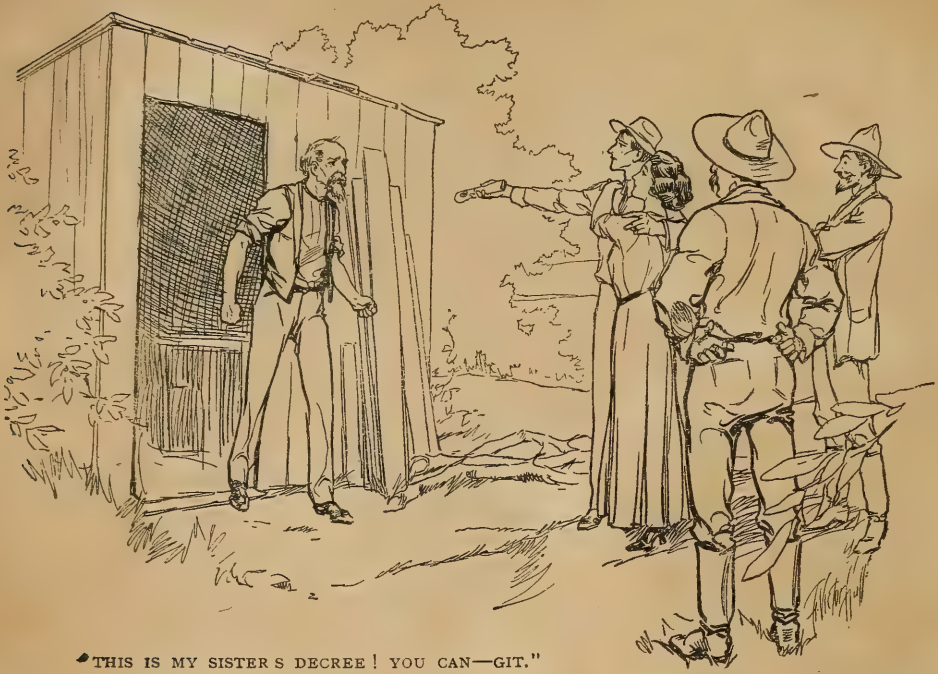
the little lady ended in a burst of tears.

She flung herself down on the ground and gave way to a spasm of grief and anger that reduced the two astounded frontiersmen to even more complete silence.

Bellows looked down at her with anger and pity struggling in his face. Storrs clenched and unclenched his hands. Both felt utterly helpless in the face of the situation.

"It's always been like this," the little lady finally found voice to say. "He always comes along and takes everything away from me. He done it ever since I married him. And he's going to keep on doing it."

Bellows and Storrs looked at Mr. Innes to see how this accusation affected him. But it slipped from his leather-like hide



“THIS IS MY SISTER'S DECREE! YOU CAN—GIT.”

as lightly as the wind capered across the plains.

“Ef you two want to git the kind uv land that suits you, you better run erlong,” he suggested comfortably.

Bellows and Storrs looked at each other, then at the approaching runners, and last at the little lady.

She looked pitifully up at them, her face stained by her tears and the red earth. She lifted her shoulders and made a gesture with her little, bloody hands that seemed to say she recognized the uselessness of protest.

“Go on! Get your claims! Don’t let them cheat you out of yours, too,” she urged.

Bellows and Storrs turned away. There seemed to be nothing for them to do but look to their own interest, which they did by making quick progress across the creek-bed to land that they knew to be first-class.

Within an hour the prairie was peopled. Five and six claimants on each quarter-section laid the foundation for a legal war that went merrily on, while others bought off and “swopped” to save themselves lawyers’ fees.

Water sold for a dollar a glass, and

Mr. Innes, again scenting his own advantage, went into the business and reaped a rich harvest from the puddle that nestled on his side of the creek-bed.

During the second day of their occupancy, Bellows and Storrs, neither of them daring to leave the land they had taken, were carrying on a long-range conversation, when a rattling old sulky and horse came along.

A young man, whose cheeks burned with a suspicious redness, drove the queer turnout. The presence of canned goods was evident by the gunny-sack that dangled from the back of the seat.

“Spare any fodder?” Bellows asked as he drew up.

“Nope. Takin’ it to my sister,” the young fellow responded pleasantly. “This is great, ain’t it?”

He filled his cramped lung cavity with the ozone and lifted eyes exactly like the little lady’s to the big blue sky.

“Whose your sister?” Storrs asked quickly, as he saw the color and soft glow of the eyes.

“Mrs. Innes, that was, praise be,” the boy replied.

Bellows came up to the sulky and laid his hand on the uncertain wheel.

"Great old trap, ain't it? Best we could afford. She came down on the train—to get in good, you know. And I jogged along with this bunch of bones. They told me back yonder that along here's where the train-load got to going. I'm looking for—"

Bellows interrupted.

"She's over the creek with her husband."

The young fellow shot up from the rickety seat and stood on the wobbly foot-rest; his face one big interrogation.

"What?"

"Sure! Her an' Mr. Innes got that claim over yonder."

"That monster ain't here?" the boy asserted and asked at once. He's hounded her till she's desperate. I'll kill him the second I sight him."

He had pulled a pistol from his pocket, and the intensity of his anger had sent the red flying into his cheeks.

"We've raked and scraped all we could to get down here—me for my health, and her to get shut of him. And he's here."

The same helpless acceptance of the ubiquitous Mr. Innes that had seemed to take possession of the little lady threatened to overwhelm her brother. Evidently the husband was an octopus when once his tentacles clutched.

"He's there, all right!" Bellows growled. "He's sellin' puddle-water fur a dollar a dipper, gettin' ready to live on Easy Street when they lay out the town—on his land, I reckon. He's got the kind uv luck you can't kill."

"Yer sister got the claim fust," Storrs added. "But he come along an' took possession, 'cause she was his wife."

Trembling with nervous excitement, the boy was fishing in the opening of his flannel shirt for something that showed the outline of sharp corners. He pulled out a thick letter in an official envelope.

"I guess he won't browbeat her any more. That's her decree. It came just after she left."

He stood waving the envelope in one hand, while his other still clutched the pistol.

Bellows snatched the envelope.

"When'd you say you got it?" he demanded.

"Day before yesterday," the brother

answered, staring with some displeasure at the excited man.

"Then she wasn't his wife when she got the claim. We kin prove she got there fust. It's her'n—it's her'n!" Bellows shouted.

Swept by the enthusiasm that took possession of them, the three men made quick time to the Innes claim.

Storrs and Bellows swallowed hard when they saw the little lady fling herself into her brother's arms.

"Archie! Archie!"

Quickly, treading on the very heels of her joy, her grief found expression in the brief but sufficient, "Ezra's here!"

"He ain't going to stay," the brother asserted, looking over his sister's shoulder at Mr. Innes, who came from his shack.

"This is my sister's decree! You can—git!" he cried, waving the envelope in the husband's face.

"You mean you and her kin git!" that individual answered coolly. "This is my claim."

"I reckon not!" Bellows said, with decision. "That there decree was granted before yesterday, so you wasn't her husband. An' we kin swear that she was here fust—so this ain't your claim!"

Mr. Innes looked at Bellows as if he thought of protesting, but that look evidently gave him cause to reconsider. He turned, with a fair amount of self-possession, and started to go. Storrs met him.

"You can leave the money for that muddy water you got out of this lady's crick," he said mildly, but with his pistol for emphasis.

And Mr. Innes, with a recognition that he was beaten, handed over the money.

"It's—it's all because you picked me off the barb-wire fence," Mrs. Innes said, as she lifted her gentle eyes to Bellows.

Bellows and Storrs swallowed hard, but for different reasons.

But the best part of the story is, though it's only reality, not romance, that the friendship between the two men never wavered while they both courted the little lady; and it grew insoluble in the comfort of their miserable confidences when the storekeeper from the town in Missouri where she had lived came down and married the little lady whose first sweetheart he had been.

Running Down Lost Freights.

BY ARTHUR F. BLAKELEY.

THE TRUE STORY SERIES. How would you like to have T. O. L. F. C. tacked onto your name? Puzzle folks, wouldn't it?

Those letters stand for an interesting profession—Tracer of Lost Freight-Cars. If you were a tracer, there is no telling where you would have to go on this great northern continent while running down a missing car. Mr. Blakeley had a number of interesting experiences while he was a tracer—quite as exciting as if he were a detective in search of an elusive robber.

But—thanks to a wonderful system and well-kept records—there are not so many missing freight-cars as one would imagine. And the fact, as Mr. Blakeley says, that his calling is followed by less than a dozen persons, shows how well our great railroad companies keep tab on their wandering rolling-stock.

**If It Hadn't Been for a Baseball Game and Some Piutes Wandering
In a Forgotten Land, Two Cars Might Have
Been Lost Forever.**

TRUE STORY, NUMBER FORTY-ONE.



FOR upward of twenty years I was a tracer of lost freight-cars. It is a unique calling, and is followed by less than a dozen persons. To those unacquainted with the intricacies of car-counting, it might seem easy to keep track of the rolling-stock; but when it is considered that, no matter how small the road owning it, a car may be sent from the Atlantic to the Pacific, and be handled by a dozen different train-crews and perhaps as many switching-crews at all hours of the day and night, there is plenty of room for mistakes.

Passenger, express, and baggage-cars are rarely lost, but the freight-car department is less fortunate; and every road of any importance has its lost-car agent, who is always on the wing, hunting up stray cars.

His trips frequently cover thousands of miles, and take him into all sections of the country, from the busy yards in the large cities to some out-of-the-way switch in a desolate region, where the railroad station stands alone.

While I was lost-car agent for the Alabama Great Southern, I had some queer experiences. While out on a hunt for box

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

car 873, a telegram reached me at Aberdeen, Mississippi, that, as soon as my report was turned in regarding its whereabouts, I was to go to Terre Haute, Indiana, in search of gondola 13,781.

This car had been sent to Indianapolis with a load of machinery for the Nordyke Marmon Machine Company from Tuscaloosa, Alabama; and, having arrived and been unloaded, instead of being sent home, it had been loaded with car-trucks and sent to Terre Haute via Vandalia, they being short of cars, and it being the unwritten rule to use anything in sight when a car must be had.

From Terre Haute it was sent to Brazil for a load of coal. It was the plan to load it there and send it on the way home as far as Indianapolis with block coal. On its arrival at Brazil, the mines were closed, owing to a strike, and the car was side-tracked on a C. and E. I. spur, owned jointly by the latter road and the Vandalia. Here the car dropped out of existence, no further trace being obtainable.

The books of the agents and switching-crews showed its arrival, but no trace of its departure. On my arrival at Brazil, I carefully inspected every side-track and coal-switch in the town; but no sign of 13,781. Many other cars of other roads, built at the same shops, and of the same description as the lost car, were there, but no A. G. S., 13,781.

I was about to give up the hunt there and try some other near-by town to see if it might not have been shoved out there for want of room at Brazil, when I chanced to go down the Chicago and Eastern Illinois tracks toward the station north of the roundhouse.

A game of ball in a park had attracted my attention. Being a lover of the sport, I found, on consulting my watch, that I had nearly an hour till the first train. Going over to where the two nines were playing, I sat down on a convenient knoll, and was soon oblivious to all but the game. The catcher was the weak point in one club, and many muffs of his allowed the



THE USEFULNESS OF THE BACK-STOP DREW MY ATTENTION.

tally of the other side to run up, nothing but a back-stop preventing the ball from landing in a pool of water.

The usefulness of the back-stop, which was both high and heavy, drew my attention to it. It looked strangely familiar, and I drew closer and soon recognized it to be the sideboards of a gondola nailed to upright posts.

This fact interested me more, and going around to the rear, my astonished vision was greeted with the sight of the letters "A. G. S.," in white, but nearly effaced, and on the end of the boards, "13,781."

In a few minutes, I learned that the boards had been purloined by enthusiastic lovers of baseball from an old, demolished car. Getting my informant to accompany me, I went to the spot, and found that from the spur track another spur had been built, at one time, to a coal-shaft, now abandoned and full of water.

By questioning the track foreman, I found that the old shaft had caved in one night, taking with it several rods of the switch. The hole was filled with water some twenty feet deep, and was perhaps a hundred feet in diameter.

Close inquiry elicited the fact that the track had been filled with cars, though none had gone down, as was thought, when the end sank in the cave-in. Thinking differently, I secured a pump from a near-by mill, and, connecting it with their steam plant, started the work of emptying the cave-in, as such ponds are called.

After three days of steady pumping the bottom began to show, and soon the draw-bar and timbers of a gondola-car were visible. When the water had been sufficiently lowered, it was quickly recognized as our lost car 13,781, though badly broken up, and in a terrible plight from lying in the mud and water for nearly two years.

A derrick was rigged up, the wrecking-car of the Chicago and Eastern Illinois was called into use, and the remains of the gondola were brought to solid ground again. Temporary rails soon got it back on the track. The back-stop was reinstalled in its original position, the car was temporarily repaired and sent home for overhauling, the mystery was solved, and my work was done.

A few months after this I was sent to St. Louis to locate car 3,002, A. G. S. It

was a box car that had left Selma, Alabama, for San Francisco, loaded with oakum for ship-calking. From San Francisco, where it had been unloaded, it was sent over to Oakland, and from there to Coronado Beach, California, with a consignment of furniture.

From there, after unloading, it had gone, empty, to Encinitos, where a gigantic powder-works is located. Here it was loaded with powder and billed to Litchfield, Illinois, the consigners being a coal company.

It had been despatched via the Santa Fe route in connection with the Southern Pacific and Missouri Pacific, and it was traced to East St. Louis with but little trouble. Here it dropped out of existence while it was being made up in the Big Four yards—at least, so far as the official record of it was concerned.

Persistent inquiry failed to locate it, and I went to Litchfield. There the books of the agent showed that the powder had been received, but in a Canada Southern car, No. 300, and that the car had been emptied and despatched to Port Huron, Michigan, as standing orders were to return to that point all empty cars of that line.

The name and number being somewhat similar, I concluded to go to Port Huron. Arriving there, I found the car had been sent to Shingleton, Michigan, just a few days before, where it was to load with shingles.

Taking the first train there, I found a sawmill and lumber-yard in the midst of a forest. I hastened to the single side-track, and I inspected the cars, half a dozen in number, half loaded with shingles. I found C. S. car 300, as expected.

A close inspection, however, revealed that on the trucks and other iron-work underneath was our company's name, as nearly all companies do mark their cars. It was easy to see that the sides of the car had been newly made and painted. The ends, however, were badly scorched, and the original boards had been repainted. The sills of the car were badly smoked. This was evidently our car.

In reply to a telegram, it was ascertained that at the time of the great oil refinery fire in the yards in East St. Louis, in the previous fall, a number of cars were burned, some being totally consumed, and

others damaged. Our car had been injured, and in the process of repairing it had been lettered incorrectly.

After the usual routine of correspondence, the car was turned over to us by the Canada Southern people, along with a bill for thirty-six dollars and eighty cents, which they had paid for repairs; and the mystery of 3,002 was solved.

Perhaps none of the many spectators and railroad men knew how near they had been to death when that car, loaded with enough powder to wipe out the city, had been in the midst of them with the woodwork on fire.

Another interesting experience in tracing lost cars fell to me in 1897. While in an Eastern city, I received orders to go at once to Gila Bend, Arizona, and see if I could locate box car 2,172 of the Mississippi Central, a leased branch line of the Alabama Great Southern. This car had been the subject of a great deal of correspondence before it had even been traced so far.

It had been in Texas, and from the Houston and Texas Central had been traced to the Toledo, St. Louis and Kansas City Railroad, thence to St. Louis again, and from there it had gone west to Nevada, where it had been loaded with silver ore.

Thence it had been back to Argentine, Kansas, to the smelter, where it had remained a month before being unloaded; and then, by a yardmaster's error, had been billed to Yuma, Arizona, in place of Selma, Alabama.

It had broken down at Gila Bend, Arizona, *en route*, and had been set off on an abandoned spur-track almost overgrown with cactus and sage-brush. The spur, at one time, led to a quarry of quartz some three miles back, but had been abandoned.



I STRUCK OUT TO SEE WHO WOULD BE FOOL ENOUGH TO LOCATE THERE.

The locality was as desolate as a hermit could desire, not an inhabitant being within miles, and a name was given to it only because, occasionally, a stockman flagged the train. South of the bend was a sand waste—an arid desert.

Dropping off the train at this place, I was lonesome in a minute; and the only consolation I could get out of the situation was that the west-bound train would be along in three hours, and I could get back into civilization at Mineral Point, a village some sixty miles away.

Taking the track or spur switch which left the main line at the bend of the road, I walked along the ties. The rails had been removed, except for a few lengths near the track. I wandered along for half a mile through the cactus, watching for Gila monsters, rattlesnakes, and other pleasant sojourners whom I might intrude upon to my sorrow; I at last came upon what appeared to be the end of the grade.

The track disappeared at the edge of a high sandhill, evidently a formation of some wind-storm for which the desert is noted. Why, I do not know; but curiosity prompted me to climb this hill, which was some thirty or forty feet in height,

and covering an acre or more. I was rewarded only by a stretch of sand-plains covered here and there with sage-brush.

Seeing nothing of interest, and anxious to get away from the lonesome spot, I was about to return, when from behind a little sand-knoll a quarter of a mile away I saw a curl of smoke arising. Thoughtless of possible danger in this haven for outlaws and renegade Indians, I struck out to see who would be fool enough to locate there.

In what had formerly been the old quartz quarry stood a dilapidated box car, out of which came smoke; while half a dozen Piute children and an assortment of native dogs lolled in the sun. No Indians being on the war-path, I made bold to venture farther. An old squaw was tanning some kind of hide, while an old buck was stretched out asleep inside a rug of wolf-hides.

Unable to converse in their language, I confined myself to a survey of the premises; and, while the trucks and running gear of the car were buried in sand, one side showed plainly that it was what was left of Mississippi Central 2,172. The lettering and paint had completely vanished from the side exposed to the wind. An explanation from the Indians being unobtainable, I left, under the scrutiny of the squaw and the barking dogs.

Retracing my steps as well as I could

in the shifting sand, I was on hand at the spot where the train stopped when flagged. At Yuma, I wired headquarters full particulars about finding 2,172, and the impossibility of ever getting it back.

Orders came at once to burn it, and, if possible, carry away the trucks and iron. As there was not a team within forty miles, the latter was out of the question, and I wired back to that effect. Nettled by this reply, the officials sent orders to burn it anyhow. This I did, aided by six stalwart section-men. It was only our show of superior force, and our help in removing the effects of the family, that we succeeded in avoiding a fight, as Scar-faced John, the buck, was ready to defend his home.

Investigation solved the problem as to how the car got there. It is likely that, after the car was side-tracked, some one released the brake and it ran down the grade, which was sufficiently steep to carry it near to, if not into, the quarry. Then the ever-shifting sands soon covered up the track, the quarry was abandoned, and the spur closed.

The country was abandoned to the roaming Piutes, sage-hens, and the ever-dreaded Gila monsters. It became a part of the Forgotten Country, and little wonder that even a freight-car should get lost there.

TRAIN HELD UP BY A HAWK.

LITTLE did the passengers of the train going to Kingville realize that a chicken hawk was the cause of their train being delayed for something like two and a half hours, says the Rock Hill, South Carolina, *Herald*. Some time before the train was due at Lesslie Station, a citizen discovered that a hawk was after his chickens.

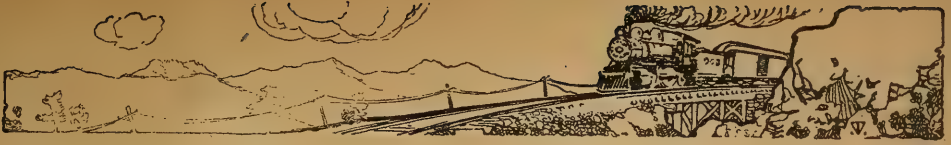
He got his gun, but before he could get a chance to shoot, it had escaped with one of the chickens. He followed the bird, which was floating along through the air like an aeroplane until it discovered one of the big steel towers of the Southern Power Company, near the railroad.

The hawk had its prey in its claws, seeking some spot where it could enjoy its breakfast. Without hesitation, it flew straight to the tower, alighting upon one of the wires, which was charged with a voltage of 22,000, still

clinging to the chicken and with the owner close behind.

But the hawk did not last long, for no sooner had its feet touched the wire when some part of its body or the body of the chicken touched the steel tower, which caused instant death, forming a short circuit which caused the heavy charged wire to burn in two.

In falling it landed on the railroad track at the crossing, which is a little way below Lesslie Station. When the train reached Lesslie Station, Captain McGuire, who was in charge, was informed of the danger that lay ahead, and after stopping the train he secured Preston Lesslie's auto and came to Rock Hill and phoned to the power plant to cut off the "juice." In a short while the train, which had been delayed for nearly three hours, went speeding on its way.



WHY BAYARD STAYED.

BY ROBERT FULKERSON HOFFMAN.

**An Engineer Declares Against High Heroics
Then Calmly Breaks the Wise Rule He Makes.**



“ALL right! Have it your way. I wouldn't make bad friends with you about it.”

Hutton, the front brakeman, spoke in tones of broad compassion for hopeless ignorance. His was the voice of a regret that yields much because of an encounter with an adversary that is so very wrong.

“And I'll tell you why,” he added, unexpectedly losing hold of his pacific intentions, in a sudden revulsion of certainty and renewed aggression.

“Neither you nor any other man knows what he'd do in that kind of a squeeze until he's square up against it. And a lot of them don't know, then, till it's all over and the pieces have quit falling.”

“Aw, what you talking about?” demanded Sunny Acre, the fireman. “You talk as though a man had no more sense than a rabbit. Nor as much, for a rabbit knows enough to hop before he's grabbed both back and front, don't he?”

“Now, that's just where your flag's faded,” declared Hutton. “He's just as likely to set still till he's grabbed, as he is to hop off. And if you was a little older at the business, you'd know it.”

“What business?” laughed Acre from under the vizard of his close-drawn cap. “Rabbit-hunting?”

“I'm wasting sleep on you,” replied Hutton in high disdain.

Without further contention, he lounged

down upon the ballast and sunk his face in the crook of his arm.

“What are you young coddymoddies squawking about?” demanded Bayard, the engineer, in good-natured drawl, as he sat up, with slow deliberation, beside them in the gloom. “Are you too strong to sleep when you get a ten-minute chance at it?”

“Oh, Hutton, here, thinks he is educating me some,” replied Acre.

“Say, Bayard, if you were to be in a head-ender right now—to-night—where you could see the other fellow coming at us in time, what would you do after you had shut off and set the brakes? Hop right then, or stay on and fiddle with the lever?”

Sunny's eyes were very bright, his face was very young and brave-looking, his blouse and overalls were stiff and new—hardly smudged, in fact—and so, while they had lain waiting in the silence of the mountain-top, under the brilliant studding of the stars and a low quarter-moon, he had fallen into Hutton's old, pet discussion.

Meanwhile, Bayard, with his head upon a tie-end and his weary body stretched upon the stone ballast of the road-bed, had slept—briefly, but well—beside them, in the deep shadow of his silent engine.

Bayard, forty-eight years old by the calendar, and twenty years old at engine-running, was a man of slow speech and reputed wisdom. For all of the twenty

years he had deliberately avoided giving the answer to that question of staying or jumping, although each new fireman—and nearly every new brakeman—had asked it in turn.

And now, he did not answer it as propounded by Sunny Acre. Instead, he arose leisurely and, after a wide-spread yawn, with his face to the sparkling sky, shook himself fully back to the joy of living.

He walked, slipped, and stumbled agilely down the slight bank of loose sandstone ballast, then climbed a pace or two, until he stood before the clear rill of mountain water that fell in cool drippings from the near-by rocks. He drank his fill from the half shell of a coconut, and laid it carefully, edge downward, in its accustomed niche of rock.

Then he looked at the pair of deeper shadows that marked the now reclining and silent orators in the shadow of the engine; listened to the far, faint murmur of the first section of opposing freight laboring up from somewhere down in the pass; looked up again at the wide, star-lit expanse of summer sky, and knew that he was going to answer Sunny Acre's question squarely, then, and from the depths of his soul.

For the world that he knew best—that great, silent, starlit world—was good to live in, and he would answer accordingly.

"What would I do?" he repeated at length in deep and measured tones across the short intervening space.

The shadowy figures of Hutton and Acre at once sat bolt upright by the engine.

"I've side-stepped that question long enough to give every man on this division that wants it a chance to hold up the traditions of the high heroic. And now I'm going to answer it for my own account," Bayard continued without prompting.

"If I was to be in a head-ender to-night, or to-morrow, or any other night or day, I'd shut off, set the brakes, reverse on general principles—and climb off.

"I'd jump as far clear of the engine as I could and keep on end, run as fast as I could, and keep on running until I got arrested for violating the speed limit,

got knocked down, or until kindling quit flying.

"And," he added with much deliberation, "if I had time, I'd surely advise you fellows to do the same. But I wouldn't wait a second longer to see whether you were coming with me.

"Now, if you will write that on the roundhouse call-board, first time she's clear, I'll sign it. Or you can tell Windy Lou, the wanderer, and that will have the same effect of publicity.

"But don't you get any wrong idea from that. Always do what you can before you unload—but unload quick when you need to."

That was the sum total of Bayard's unexpected declaration, and, resisting all enticements held out by the promptly renewed wrangle of Hutton and Acre, he bared his well-thatched gray head to the cool of the night and withdrew into his habitual silence as precipitately as he had emerged from it.

No specious plea against that final precious help that may possibly be drawn from careful reversing at the last, even though the brakes be fully set; no clever application of the theory of increased coefficients of friction at slower speeds, as Acre had newly coined it; no begging of the question as to whether it is the running of the first twenty, or the last twenty feet, after brakes are set, that causes the slaughter in collision, served to incite Bayard to further discussion.

His position was clear and final.

Do what you can for others, for your train, and for yourself. Shut off, warn, jump, run, and keep on running!

It did not sound at all heroic; barely civil, in fact. But Bayard, quite composed and quietly happy in his work and his surroundings, climbed aboard in due time, after the meeting and passing of the first freight section was accomplished, read his latest order once more, for certainty's sake, and started for the bottom of the pass, with a clear conscience and a track supposed to be equally clear.

He caught the top buttons of his corduroy coat into place as the night breeze grew keener with moderately increased motion—corduroy was the one visible foible of Bayard—and he lifted his stout corduroyed leg to his favorite position, astride the nicely balanced reverse-lever,

and settled comfortably to the business of running down the curving grades.

Hutton and Acre, hunched up together on Acre's seat-box, were still debating with unflagging zeal. They had not arrived at a conclusion when the engine reached the bottom of the pass and struck into the rather sharp left curve, around the base of the mountain.

On Acre's side of the engine the vertical rock-wall continued close to the cab-window. On Bayard's side the first funnel of the valley lay wide and smooth with range-grass. There they met the second section of freight, without note or notice, coming to them at a spanking pace on the single track.

It is of no present consequence how they got there, perhaps, except that Bayard was running correctly on his order and the other crew had misread the meeting-point. And so the meeting-point having been suddenly transposed without notice, while Hutton and Acre were busy with their own opinions on the obstructed side of the engine-view, it was Bayard who first caught the rocking gleam of the coming headlight and voiced a brief warning.

"Jump! This side!" he shouted, and that was all, except one short bark from the whistle, which the other engine instantly echoed, in kind.

For the rest of it he thrust the throttle shut upon the thread of steam which he had been using, toward the level, swept the brake-valve to its fullest duty, as his hand fell from the throttle and, with his feet still astride of the quadrant, and one of them resting upon the strong steel footrest which projected from the side of the quadrant, he pulled the lever back sharply, released the latch and, attempting to get to his feet, lunged half out of the window, intending to swing his feet up and leap clear.

Instead of leaping, however, he turned hastily back, after one longing, straining glance at Hutton and Acre fleeing safely under the quarter moon, across the range grass, and then he attacked the reverse lever fiercely, in the effort to reset it elsewhere in the quadrant.

That was the last fleeting view Hutton and Acre had of him, struggling in writhing outline, against the dim cab-lights, until after all was over.

They stood watching, with shortened breath, as the great, shadowy hulks of the engines bore down resistlessly upon each other, while little jets of fire spurted from the grinding brake-shoes upon the wheels all along the cars crowding up darkly from the rear.

Sunny Acre's arms were unconsciously stiffened in grotesque arcs like those of a frog's front legs in poise for leaping, and his outspread fingers were set wide and separately as extended claws.

Hutton, close beside him, ankle-deep in the brown grass, leaned forward, open-mouthed, in that last moment when the senses of the onlooker undergo a sort of palsy, and colliding engines deceptively seem to halt just before striking.

Then, with a brakeman's last resort when all else had failed, he let go a piercing, quavering yell that was swallowed up in the crash of the impact, leaped once, straight up from the ground, and started racing back toward the grinding and smoking jumble in the half darkness on the tracks.

All of it was very briefly done. The opposing pilots thrust their steel-shod noses together, crunched and crumpled; headlight glasses fell shattered and clinking upon the crushed forward decks; the muffled roar of collapsed front-ends followed, and the front-ends lifted from the trucks, a little space, like belligerent goats in their first preliminary of battle, then settled, jerkily, down.

The dull rumble of the suddenly stayed trains quickly subsided in both directions, and these things were about all that marked the occasion in the usual way, except that the erring freight-crew had leaped and run, and had joined Hutton and Acre, at a safe distance, before the broken glass had ceased falling.

Bayard was the one unaccountable unit of the whole transaction. When the four fugitives had come hurrying back and climbed upon Bayard's engine, they found him standing bolt upright, in almost military severity, except that his feet were astride of the quadrant and his hand was upon the top end of the reverse lever. He was chewing a stub of match stem and looking, with a faded sort of smile, out into the dimly lighted valley.

"Matter, Bayard? Did it get you?" asked one of them, in kindly concern,

while yet clambering up the distorted engine-step.

"Nope," replied Bayard serenely.

"Then, why in Cain didn't you unload?" demanded the same voice.

"We're in bad enough. No use scaring the souls out of the rest of the gang, is there?"

"Say," exclaimed Bayard, with sudden testiness of speech, "I wouldn't worry any about that, if I were you. I'm on my beat, all right, ain't I?"

"I was 'staying by her,' understand? 'Brave engineer stayed at his post,' eh?"

"Now, you fellows had better climb your own engine, and we'll see if we can back 'em apart. Then you can begin to figure out how you got here on my time."

Through it all, Bayard stood firmly erect. He maintained his clutch upon the reverse lever and his clinch upon the match stem, until the others had departed, and only Sunny Acre was left in the cab with him.

Then Bayard's heroic pose underwent a sudden change. It gave place to feverish activity.

"Sunny," he commanded in quick, insistent undertone, "grab hold of this reverse lever, and help me throw it over forward!"

"The left leg of these cursed corduroys is caught and jammed between the lever and the quadrant, and I could neither tear loose nor throw her."

A lusty pull or two from Sunny, with his back to the boiler-head and his foot upon the end of the seat-box, added to Bayard's earnest but cramped efforts, did it, and Bayard stood free, examining his traitor garment.

"That's why I stayed, Sunny. And, if you ever tell it, you're no friend of mine."

"I tried hard enough to get away, but this stuff I'm wearing is too good for the job."

With that, Bayard rolled both legs of his overalls up above the knees, searched out his pocket-knife, and carefully amputated both corduroy trouser-legs, just below the knees. He was anything but a heroic figure as he kicked the severed parts free of his feet, and rolled his overalls down to place.

Sunny, thawed out of his fright, and well into the reaction, clung weakly to the throttle fulcrum and laughed while he wept.

Before Bayard added his efforts to those of the other engine-crew in backing clear of the tangle, he opened the fire-box door, tossed the discarded sections of torn corduroy into the still flourishing fire, and quickly latched the door upon them.

This is the how and the why of Bayard's staying at his post. That is to say, staying longer than to others seemed necessary. Yet, Bayard is quite as good as the best men who ever ran locomotives, and he never shirked a duty because of danger.

It may also show why, when he made his next trip out on the road, and thereafter, Bayard wore anything that suited his fancy, except corduroy. And, if Sunny Acre had not shamelessly broken the embargo of secrecy, which Bayard placed upon him, Bayard's real reason for staying might never have found its way here.



Riding the Rail from Coast to Coast.

BY GILSON WILLETS,

Special Traveling Correspondent of "The Railroad Man's Magazine."

ONE of the many readers of THE RAILROAD MAN'S MAGAZINE recently wrote to us, "If I could tell stories like Gilson Willets I would die happy." We wish that, by some magical power, we could gratify our correspondent's desire, so far as the first part is concerned; but, after all, the telling of a story—at least, such stories as Mr. Willets writes—is not the whole thing. It is *hearing* them.

We dare say that Mr. Willets *heard* hundreds of stories while riding the rail which were only good enough to forget. Willets *knew* a good story when he *heard* one. Being a good writer, he knew how to repeat it. Our readers get the benefit.

No. 12. — IN THE LAST OF THE TERRITORIES.

The Rise of "Vermont"—Getting the Widow's Third Son—Making "Ash Fork" Buy—Tackling a Toro—A Rattlesnake Alarm-Clock—Flooding a Jail—and Others.



DOWN in Tucson, Arizona, in 1880, the Southern Pacific's representation in trackage, yardage, and superstructures was not so imposing as that of to-day

—of course not. Yet, even at that time, C. P. Huntington had planted a sufficient number of railroad adjuncts in Tucson to cause the town to be regarded, throughout southeastern Arizona, as truly metropolitan.

It was only natural, then, that this Arizona metropolis should be the first town in the Southwest to form a lodge of the Brotherhood of Locomotive Firemen.

After Mr. Huntington gave the town the railroad adjuncts aforementioned, a

station, some shops, an engine-house, and a coal-bin, the number of railroaders in the place was some considerable.

And it came to pass that one day late in the year 1880, one of the "adjuncts," namely, the coal-bin, bore a newly posted sign, reading:

A meeting of the locomotive firemen of this division will take place in this hall this evening, for the purpose of initiating a new member. Firemen who believe in sticking together will please note that the starting time is seven o'clock.

Within the "hall," amid the black diamonds and the dust thereof, about a dozen men in overalls and jumpers put in an appearance at the appointed hour.

They took their seats on cracker-boxes, barrels, and whatever else came handy,

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and then with great solemnity the ceremonies opened with remarks from the master, who said:

"Gents, the thirteenth member of this lodge is now to be received into our fold, and our brand put onto him. The sergeant-at-arms will kindly bring in Frank Sargent, commonly known on this division as 'Vermont.'"

And that's how, where, and when Frank Sargent joined the Brotherhood of Locomotive Firemen. You all know the name, because Frank Sargent, within five years of his initiation at Tucson, became grand master of the brotherhood, and, later, Commissioner-General of Immigration of the United States, holding that post when he died in September, 1908.

"Vermont" Gets His Start.

About six months previous to that night when the brand was put onto Frank Sargent in the coal-bin at Tucson, a man of twenty-six summers walked into the yardmaster's shanty at Tucson and asked Yardmaster Mant for a job.

"Well, son, what do you know about railroadin'?" asked Mant.

"Nothing at all, sir. I've just spent five years tendin' stock and shooting Apaches, about harf and harf, sir."

"Harf and harf, eh? Not half and half. You from 'way down East?"

"Yes, sir—Vermont."

"Well, Vermont, what *as* have you been tendin' stock and shootin' 'Paches? Cowpuncher?"

"No, sir. United States cavalryman, at thirteen dollars a month."

"Well, Vermont, if you allow you can begin at the bottom here, you can stam-pede yourself over to our engine-house and wrestle with cotton-waste in the way of wipin' engines, at forty dollars a month."

And that's how, when, and where Frank Sargent became a railroad man, beginning as engine-wiper at Tucson. He was so quick in learning everything about a locomotive that in six months he became a fireman and a member of the local lodge of the brotherhood.

And Frank Sargent became grand master of the brotherhood after only five years' experience as a railroad man. That is easily understood, however, if you listen

to stories they tell at Tucson of how Sargent, or "Vermont," as he was known down there, acquired the popularity among firemen that led to his election, in such short order, to the highest office within the gift of the brotherhood.

The Tucson men will tell you that very soon after Sargent quit wiping to fire an engine, a man named Snelling loomed up in Tucson, riding the rods, and was accosted by "Vermont" thus:

"What's the sense of being an outcast, Snelling, a fine fellow like you, when you can be a real man among men? The job of wiper in the engine-house is vacant here and now, and if you say the word you can have a chance to make a man of yourself."

Snelling took the job, became ultimately a fireman—and throughout his life would have given his heart for young "Vermont."

Once a fireman named Garner chucked up his job and mounted a horse to ride away into the desert.

"I'm tired of railroadin'," Garner said to "Vermont." "I'm going to hit the trail for Globe."

"Oh, you'll come back, all right," said "Vermont" with conviction in his voice. "You'll want your job back, same as soldiers always went to reenlist. I've heard many a bunkie say, at the expiration of his enlistment, that he would not come back. But they always came back, all the same."

Garner Came Back.

"Now, I'm going to arrange with Yardmaster Mant for you to come back on your own job and your own run, any time within four months. I'll tell Mant you're hitting the trail as a sorter vacation—see? I reckon two months' vacation will be your limit, Garner."

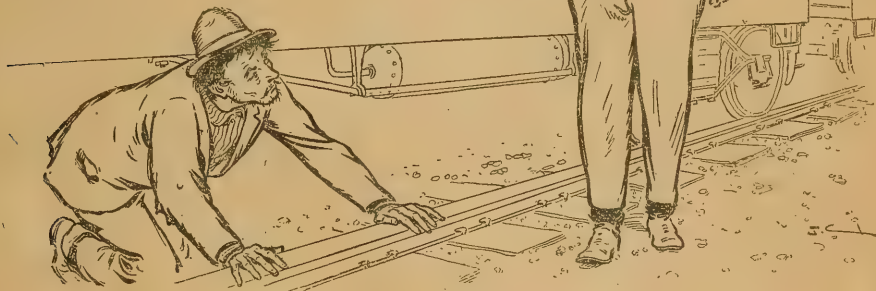
"And say, I want you to do something for me up at Globe. There's a widow up there named Halpin. She's one of the bravest women in Arizona. She's got three sons, and all three of 'em, together with the widow, are crack shots."

"Many a time, after they had been besieged by Apaches at their cabin in Superstition Mountain, I've ridden up there with others of my troop, to clean out the enemy, only to find that the wid-

ow and her sons had been standing off the Apaches for days and made the Indians think that about two dozen sharpshooters were in garrison in that cabin.

"Well now, Garner, two of those sons have married and settled in Globe, and the widow is living there, too. But the third son is still scot-free of petticoats. He used often to say to me that he wanted to hike out to Tucson and get a job on the railroad just as soon as his shootin'-irons were no longer needed to protect his mother.

"So I want you to bring that third son back here with you, and I'll get Mant to put him on the Espee pay-roll. It'll make a man of him in a new way. And I'll tell Mant you're off on recruiting service—for we need men here."



A MAN NAMED SNELLING LOOMED UP IN TUCSON.

Two months later, just the time named in "Vermont's" prediction, Garner rode back into Tucson, and with him came the third son of the Widow Halpin. Garner got his own job and his own run back, just as "Vermont" had promised, and young Halpin was put to wiping in the engine-house at forty a month.

This made two more friends for "Vermont." And it is with no end of stories of this kind that the men of Tucson illustrate for you how "Vermont" Sargent gained the popularity that put him at the head of the Brotherhood of Locomotive Firemen after he had been railroading only five years.

Mrs. Wheeler's Store.

Thirteen years ago a man from Rochester, New York, and his young bride—Mr. and Mrs. Abram Wheeler—came to Tucson and opened a harness-shop.

Wheeler presently got to dabbling in copper-mines, leaving Mrs. Wheeler in town to run the shop.

The bride gamely took up the work, drummed up trade, sold trappings to the teamsters who hauled ore-wagons to and from the mines, and even invented and patented a new kind of hame and col-

lar for teams of six horses or more hauling ore.

"That there is a plucky little woman," said Foreman Joe Harrington, formerly of the engine-house, but now of the shops.

"She deserves to succeed, and what I allow is that it is sad and sorrowful that us railroaders don't need harness and so make business for the little woman."

Soon after that a boss teamster from the mines drove into Tucson with an eight-horse team hitched to an ore-wagon, the harness on the outfit being in shreds and tied together with ropes in a makeshift fashion.

"Had a accident with these pestiferous horses," announced the boss teamster, Ash Fork Pete. "And now I'm goin' to telegraph to El Paso for new harness, waitin' here till the same comes up on the train."

Harrington and the boys who heard

this looked at one another significantly—and forthwith went into executive session with the following result:

When Ash Fork Pete stepped into the telegraph office at the station to send his wire to El Paso, some twenty of the Tucson railroad men, headed by Harrington, advanced upon the telegraph office in a body, and their leader stepped up to the teamster and said:

And "Ash Fork" Bought.

"Ash Fork, we have decided that home industry is worthy of the patronage of all outfits headquartering along this railroad. For those who gallivant round this metropolis of Tucson in particular, we recommend a certain harness-shop as is attended to capable by Mrs. Wheeler.

"And what we have come to concerning this matter is, that folks that send needless to El Paso for harness trappings is like to find this metropolis some malarious hereinafter.

"You sees, we don't have no call for sich harness, we being railroad men. But when we finds others as do need it, we proposes to steer 'em on the trail of Mrs. Wheeler; she has hames and collars good as any from El Paso, and they can be had without sending her no telegram."

"But I don't want no home-made hames and collars, gents," speaks up Ash Fork Pete.

"Yes, you do, Ash Fork!" Twenty guns were flashed into sight. Surrounded by those twenty guns, Ash Fork was marched to the harness-shop of Mrs. Wheeler, and not permitted to issue forth until he had purchased what he needed.

In the Greasewood.

In its flight across Arizona, my train was held up twice. The first was at a tank station in the desert, and there we stood for three hours, all because of something unheard of in the East, but common in the Southwest.

There was not a drop of water in the tank. That would have been nothing serious; had there been any gasoline with which to pump water. For the lack of a spoonful of oil we could not budge.

The second involuntary pause was in

the greasewood, miles from nowhere, between Mescal and Benson, and a wreck ahead was the cause. Here we stood for seven hours.

I was glad of both these delays and the chance to roam around in the greasewood, because in these periods of train idleness I had long talks with Old Man Streamer, old-time cowboy and railroader. He was one of the excursionists in the special train behind us, which, when we stopped, poked her nose right into the platform of our observation-car.

The special was carrying a large number of Southwesterners to Mexico City, a one-way fare for the round trip. With the stopping of the trains, the passengers from the two trains commingled, to pass the time away with rambles on the desert.

"I shore am enjoying the big delight at meeting you," said Old Man Streamer, in greeting. "I'm traveling *this* way now as a towerist, I being out for a holiday on that towerists' train yonder, bound for Mexico City. But days I've traveled *that* away, though," and he indicated the men in the caboose of a freight that was stalled near our own trains.

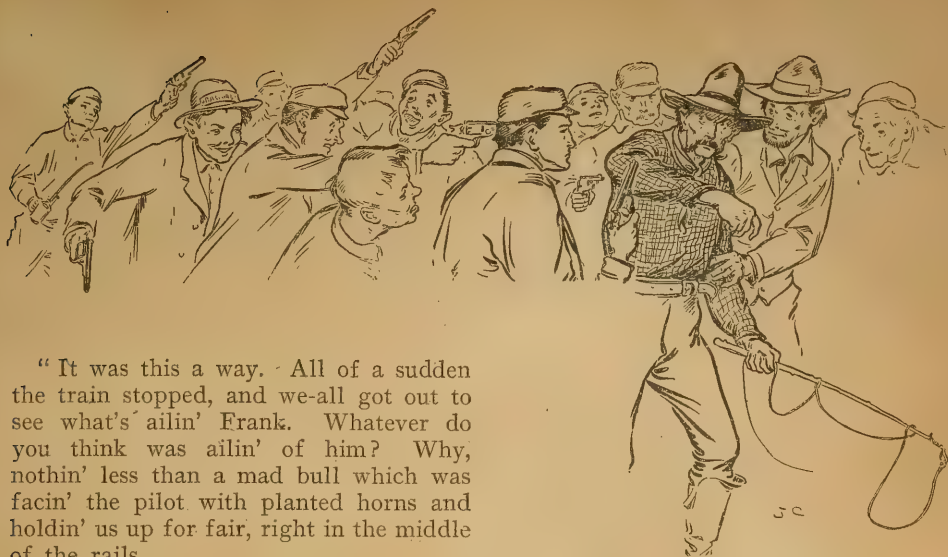
Old Streamer Chews the Fat.

"Yes, son, after I quit cow-punchin' I went to railroadin', and stayed at it till I got some sixty-three wrinkles on my horns. I saved the money instead of straddling it over the Territories like these yere softthorns you-see around on railroads, and by savin' that away I'm able now to travel as a towerist and see things leisure-like before I close my lids for the life everlastin'."

During that stop in the greasewood I strolled around with Old Man Streamer, listening to his endless chain of tales, until he finally said:

"Let's camp right yere, son," seating himself on the 'dobe and lighting his cob pipe. "And I'll tell you, before I forgit it, about my friend Frank Baker and how he come to be a bull-fighter.

"Frank's a engineer on the Colorado Midland. I was traveling on his train only a few days ago—out of New Mexico, and going up Buena Vista way—when Frank allowed the time had come when he ought to turn toreador.



"It was this a way. All of a sudden the train stopped, and we-all got out to see what's ailin' Frank. Whatever do you think was ailin' of him? Why, nothin' less than a mad bull which was facin' the pilot with planted horns and holdin' us up for fair, right in the middle of the rails.

"That son of a sea-cook gored a track-walker down a piece,' says Frank. 'I saw the gorin', I did, and now here he is standin' us off.' With that Frank ups and heaves some coal at the toro, but the toro acts like he enjoys the festivities, and swishes his tail and snorts like he's saying as how he'd like to chew somebody's mane.

In the Matador Business.

"I'll fix that 'cow,' swears Frank, jumping off his cab and advancing on the mad bovine with his fireman's shovel in his hand.

"That ain't no cow,' says Alf Hogan, the fireman. 'That's an infuriated male head of cattle.'

"I know it,' says Frank; 'an I intend to turn this yere desert into a bull-ring.'

"Frank charges the bull just like the matador in the ring, using the shovel for a sword. Also the bull charges Frank—with results and consequences mighty painful to Frank. That bull pushes his horns into Frank enthusiastic, as if he meant to feed and bed down on engineers the rest of his life. But that hope was cut short by a shot from a gun in the hands of Hogan, the fireman.

"We picked Frank up, decernin' that he was some unnatural from the gorin' he'd had. But I'm a Mex if Frank

"SURROUNDED BY TWENTY GUNS, ASH FORK WAS MARCHED TO THE HARNESS-SHOP."

weren't game, all the same. 'Lift me onto my cab,' says he instanter, minute he come to.

"And hanged if he didn't seize hold of the throttle and set out to run that train to Buena Vista! But soon he falls off his box in a dead faint from loss of blood, and the fireman has to take the train in.

"We carried Frank to his teepee on a nice little reservation that he had staked out for to live on, and we thought he was sure to come abreast of the bright and shinin' gates before night.

"All the same, he *did* have a hard pull for life. And I allow that the next time his train is stood up by a mad bull, with the blood hunger, Frank Baker will remain in his cab, instead of goin' forth to play matador."

"Highpocket's" Rattler.

"Nother friend of mine," continued Old Man Streamer, while still "camped" on the 'dobe, "is a Santa Fe engineer out of Lamy, New Mexico. He's a rattlesnake fancier, he is. His name is Highpocket Smith.

"One day, while lolling on a lonely sidin', Highpocket sees a wounded rattler, and out of sheer good nacher to-

ward wild animals, Highpocket picks up the rattler and carries him home and nurses him back to health and long life.

"And it's Gospel I'm tellin' you, son, as any railroader in New Mexico will tell you, that Highpocket never had to say, 'How sharper than an infant's tooth it is to have an ungrateful serpent.' That rattler showed his gratitude—he did.

"One night Highpocket awoke out of

"The plan was this: Looping himself around Jerry's bedpost, the rattler put his head in the watch-pocket of Jerry's vest, and the minute six o'clock ticked the rattler rattled his rattles till Jerry woke. Yes, son, you just arsk Jerry. He'll tell you he's got the cheapest and best alarm-clock on the whole Santa Fe system."

The Old Man remained silent awhile, during which time I neither spoke nor



"FRANK CHARGES THE BULL, USING THE SHOVEL FOR A SWORD."

a sound sleep to hear rattlers rattling right beside his bedside. He jumps up, follows the windings and twistings of the rattler's body through the house till he comes down to the dining-room, where he sees the snake's body coiled round the body of a burglar, holdin' th' burglar hard and fast so's Highpocket could nab him.

And Jerry Woke Up!

"And then there was Jerry Muskovitz, rodman on the Santa Fe, working at Belen, New Mexico. Jerry was a snake lover too, just like Highpocket, and he, too, rescued a rattler in distress. The snake followed Jerry home, and lived with him a whole lot. And that time when Jerry got jacked up for not showin' up for work early enough of mornin's, the rattler got to thinkin' how he could help his benefactor, and at last hit onto a plan.

barely breathed, for my experience has taught me never to ask an oldster a single question. After a while, as I had banked he would do, the Old Man cleared his speaking-valves and opened up again:

"But, serious, son, have you ever heard of Black Jake, the train-robber? Sure you have. I knowed it. Well, Black Jake was the only man in the Southwest that ever induced me to quit my job voluntarily and take a vacation.

"He made me lose a lot of pay, Black Jake did; and when I think of the money I might have saved while taking that vacation in his behalf, it makes me nauseated.

At Third-Drink Time.

"Black Jake was for awhile the terror of all trainmen in these Territories. He robbed trains right and left, first on the Santa Fe, then on the Espee, and we never knowed where he'd show up next.

he'd ride into a cow town at first-drink time in the evenin', take a swig of nose-paint, then go out and stand up a train and return to the joint in time for a bit of nose-paint at third-drink time.

"He was absolute fearless, Black Jake was, and he swore he'd never be taken alive, him bein' one of those gun-men that could shoot off the hip.

"Well, I had a friend, a pardner he sure was to me, who was express messenger on the Santa Fe. His name were Willyum Klaber, and he was as absolute fearless as Black Jake or any other bandit known to us boys.

"So when, one night in June, some eleven or twelve years gone now, when Black Jake and his gang held up the Santa Fe Overland train west of Gallup, New Mexico, and ordered Willyum Klaber to fork over the sack of gold and currency that was there present, Willyum Klaber whips out his gun and begins lettin' fly permise'us.

"The next time I saw Willyum he was dead, of course. For Black Jake attended to him instanter on the occasion when Willyum refused to obey the bandit's orders. Black Jake on that occasion also dynamited the express-car and got the sack of gold and currency.

Lure for Bandit-Trailers.

"Immediate, the Santa Fe posted five thousand dollars reward for Black Jake, dead or alive. Well, son, that reward brought more bandit-trailers and professional takers of train-robbers to New Mexico and Arizona than we ever sees in these Territories before or since. I reckon there was fully a hundred men, working independent and in posses, tryin' to run down Black Jake, dead or alive.

"It was then that I myself knocked off work on the line, and allowed I'd devote a vacation to takin' Black Jake and earnin' that five thousand. Black Jake had killed my bosom partner, Willyum Klaber. I would avenge Willyum, and scoop in the reward shore, too.

"So I outfits and sets off on a mustang, gallivantin' round the uninhabited regions of Arizona along the line of the Arizona and New Mexico Railway that runs up to Clifton, Arizona, where it was said Black Jake and his gang retired

after standin' up the Overland that time at Gallup.

"I cavorts around, bushwackin' in and out of cow towns at first, second, and third drink times, but never a smell of Black Jake do I get. Finally I hears that he has been trailed to some place mighty near to Clifton. I had been on the trail and off it for some six weeks then, and I was dead sick of the job of avengin' Willyum and tryin' to earn that reward. But I decided that I'd make one more try up Clifton way to get Black Jake.

Cornered at Last!

"After three days in the saddle, I rides into Clifton, red-hot on the very heels of Black Jake—only to hear one of the hundred professional bandit-takers employed by the Santa Fe say:

"Good news, Mr. Streamer. Black Jake is in that prison at Clifton that's hewed out of the solid rock, and is one of the most unique prisons in this or any other country. I presume, Mr. Streamer, that congratulations are in order from you, you bein' particular friend to Willyum Klaber, the same havin' been slaughtered by Black Jake—since I am the one who landed Jake prompt in the stone wickiup."

"Oh, yes, son; I congratulated that feller, you believe. The hour bein' second-drink time, I allowed it was in order to proceed to the joint in the Red Light and there clink the crystal in token of his glad news. We clinked, and then I hiked back to the rails, resolved never again to quit wages to avenge some friend, not even if I found another Willyum Klaber.

"Concernin' of that same prison that's hewn in the solid rocks at Clifton, I'll come again, and then I guess I'll get back to my fellow towerists, which has asked me to set in a game of poker.

The Clifton Bastile.

"Before proceedin' with what I'm now opening up on, I must paint you a picture of that prison. It is composed of three big cells forming the letter 'T,' the same having been blasted out original by a mining company for the incarceratin' of miners that were needin' punishment.

"The prison has for entrance a 'dobe hut that stands not ten feet from the tracks of the Arizona and New Mexico Railway. The tracks of the railway run along there between the entrance to the prison on one side and the San Francisco River on the other.

"Close to the 'dobe hut that forms the entry to the prison there is a switchman's hut, and another hut where the prison

the spring of 1891 the San Francisco River cut loose and flooded things permisc'us. It riz and it riz, till it reached the 'dobe huts at the entrance to the prison. It riz—that is, so quick-like—that it carried off the guard and all but drowned the switchman.

"I think it pretty safe to say that in all my born days I never see a river that riz as high as that one.

"In the mornin', while the flood was still ragin', the switchman, he bein' perched on top of the 'dobe hut at the entrance to the prison, became aware that some men of the town of Clifton, on the opposite bank of the river, was tryin' to attract his attention.

"The switchman watched, and presently he sees a big sign—a board—raised on high, bearing these words writ with charcoal by the Sheriff of Clinton:

"Get Friday out of the Balliwax."

"Friday, son, was the lone and only prisoner then in the jail, he bein' in durance vile for seekin' to make his fortune by standin' up a train of the Arizona and New Mexico Railroad.

"The switchman, accordin', now swims down track to dry land, and tells the miners there what the sign across the river says. The miners then takes dynamite and jumps up to the rock prison and sets to work to blast out the prisoner, Friday.

"They puts a charge into that cooler that would have blown up a town, making a hole big enough to crawl through.

But Friday Came Not.

"Come out of the Balliwax, Friday,' the miners and the switchman cry in chorus. But Friday came not, neither did he show up to take advantage of his blessed liberty.



"IT CARRIED OFF THE GUARD AND ALL BUT DROWNED THE SWITCHMAN."

guard lives—that guard's principal work bein' to pass food through the bars of the prison window—bars fastened in the rock on the face of the cliff—to the prisoners.

"On the prison side of the river is mostly the prison and the mines. On the other side of the river is the town of Clifton. Now, have you got all that fixed in your mind?

"If so, I may proceed to state that in

"So inwards step the miners and the switchman, to find Friday, wounded and unable to move, all on account of the flying-stone effect resultin' from the blast.

"Look here, you-all,' moans Friday, 'what do you mean by trying to kill a man in order to save his life?'

"And now, son, did I say that would be about all? Well, this here poker-game I'm scheduled to set into has reminded me of just one more. And as the trains give no sign nor signal smoke of breaking camp, I allow there's time for me to frame up this supplement.

"The poker-game reminds me of the hand Marshal Moore drew up at Phoenix, recent. One of the railroad boys up there phoned Moore to come to the station on a run, and capture a lunatic that was bucking and prancing around loose, and was frightening away possible patrons of the Maricopa and Phoenix Railway.

"Moore hikes down to the depot, and the boys there put him next to a Mexican known in the town as Miguel Ceres. Miguel now looked tame enough to eat out of the hand of almost anybody, and, in reply to all Moore's questions, he answered rational-like and sane.

Dotty Dialogues.

"This yere ain't no lunatic,' says Moore contemptuous, addressing the boys.

"And Moore turns to go. Just then up springs Miguel and tags after Moore, shouting: 'What did you do with all those women?'

"What women?' arks Moore.

"Why, all those ladies you sent up in a balloon from this depot larst night?'

"Well, son, Moore annexed that Mexican prompt. But before he could get away from the depot, one of the boys out of the ticket-office came runnin' up to him, sayin':

"Marshal, some one wants you on the telephone.'

"Moore goes to the wire and hears some one ask him to come at once to a certain teepee in Phoenix and take possession by right of eminent domain of a crazy man. The marshal thereby pinches himself to make sure he's not in a dream or sufferin' from the treemers.

"Decidin' that all's well with him to date, he takes the lunatic Miguel in tow

and perambulates the nearest route to the teepee at the street number mentioned on the wire. He enters the teepee and finds a Mexican lying on a cot and other Mexicans standin' round, cryin':

"Take him prisoner, marshal. This is Antonio Flores, and he's got a fire in his stomach.'

Accordin' to Hoyle.

"Moore questioned Antonio, and Antonio answered accordin' to Hoyle.

"This ain't no crazy man,' announced Moore resultin'ly, turnin' to depart.

"But just then the Mexican on the cot cried out:

"Oh, this fire in my stomach. I am only a stove and some one has lighted a fire inside of me.'

"Are you a fire-eater?' arsked Moore.

"No, *señor*, but I'm the fire-box of a locomotive and soft coal is making a blaze inside of me.'

"Hearing the which, Marshal Moore heaves a sigh, despondent, and gathers in Antonio Flores alongside of Miguel Ceres. On the way up the street, he entrusts his two charges to the care of the man at the cigar-stand while he calls up the sheriff's office an' says:

"I'm sitting in the lunny game lively this morning. I open the pot. I've drawn a *pair*.'

After the seven-hour wait in the greasewood, we pulled on eastward through Benson, Cochise and Bowie in Arizona, then to Lordsburg, New Mexico, where passengers connected with the Arizona and New Mexico Railroad mentioned by Old Man Streamer—that road running up to Clifton, Arizona.

A Dead Sheep.

By the time I had passed through the New Mexico town of Deming and began running over the tail-end of the division into El Paso, I was in possession of many stories of railroad life in the last of the Territories—of which the following are given here as the most interesting:

On the Santa Fe Railroad south of Santa Fe, a train having Engineer Reardon at the throttle was nearing the Arroyo Chamez. It was late in the af-

ternoon of July 15, 1908. As he rushed northward toward the arroyo, Reardon saw a dead sheep lying on the right of way.

"Looks like he'd been drowned," Reardon shouted to his fireman.

"Yes! Think the arroyo is spilling over," replied the fireman.

Pretty soon they passed another dead sheep, and then a third.

"There was more than one animal in that arroyo when the spill came," said Reardon, slowing down. They passed two more dead sheep, and then Reardon stopped dead, remarking that a little investigation was in order.

Sixty Cents a Sheep.

Reardon hated to stop his train, for he knew that every such stop cost his company sixty cents, that being the estimated expense of bringing a train to a full stop and of accelerating the speed again to normal. Multiply sixty cents by every dead sheep you pass and it will amount to many dollars in time. Nevertheless, Reardon decided that so many carcasses were nothing less than a warning of something unusual going on at the Arroyo Chamez.

"What I want to know is, how did these carcasses get here?" he said.

"It's mighty wet hereabouts," said the fireman. "Looks like the arroyo had been sending a gush of water down the line."

And as the two men advanced on foot to investigate, lo! a wall of water was seen approaching—a sight that made them scamper back to their cab. The water rushed by, flooding the floor of the cab and putting out the fire in the engine.

The water subsided quickly, however, and when Reardon and others of the train crew walked up track again to investigate, they found hundreds of dead sheep. Moreover, they found that some three hundred feet of track had been washed away this side of the arroyo, also that the trestle over the arroyo was gone.

"Cloudburst!" announced a track-walker. "It'll take twenty-four hours to relay track and reopen communication by rail with Santa Fe, so you fellows might as well hit the hay."

"It's good I didn't mind spending sixty cents to take a peek," said Reardon, with a self-satisfied smile.

A Terrific Tank.

The most novel load ever hauled by rail was under the direction of Emmett Stansel, foreman of bridges and buildings, with the assistance of engine 0155, Engineer Weedon, and Conductor Mike



"CALLS UP THE SHERIFF'S OFFICE AND SAYS:—

Murphy, all of the New Mexico division of the Santa Fe.

The novelty of the load lay in the height and width of the thing hauled. It was as high as eight ordinary men. It was as high as that four-and-a-half-story office building in Albuquerque. It was as wide as a city lot. It weighed 60,000 pounds.

"It was one of our standard steel tanks," said my informant. "Now, if you want something clumsy to wrestle with in the freight-traffic way, just you attempt to move that kind of a tank four miles over two curves with an elevation of five inches—for that's the distance we moved that big tank and such were the conditions of the same."

"Our foreman, Emmett Stansel, sure knew his business. He first lifted that tank off its foundation. Then he raised it up with jacks, till it was high enough in the air for us to back two steel flat cars under it. When the tank was all braced and fastened down, an engine was hitched on and the novel moving took place successful—from Springer to the new Springer yards.

"Queerest load I've ever seen, and

turing no end of desperate criminals. In July, 1908, he had been in Williams three years, becoming a successful boss contractor.

One day a stranger walked up to Frank Sherlock and asked for a job. After a second look at Sherlock the stranger said, "How!"

"How!" answered Sherlock, peering sharply at the stranger. Without another word from either of the men, Sher-



—'I'M SITTING IN THE LUNY-GAME LIVELY THIS MORNING. I OPEN THE POT. I'VE DRAWN A PAIR.'"

I've been in the traffic department of the Santa Fe ever since we hauled the first train through New Mexico thirty years ago. Nothing could get by the train pulling that tank, you bet, 'cause we occupied about all the right of way there was, our load being some twenty-four feet wide, the diameter of the tank, and forty-three feet in the air. It was the clumsiest package of freight the Santa Fe or any other road has ever had to carry."

Meeting Sherlock.

Before coming to Williams, Frank Sherlock had for eight years served as deputy sheriff of Mojave County, cap-

lock put the stranger to work under his own eye.

In two weeks, however, Sherlock discharged the new hand—for good reasons. Two days later the stranger was seen holding whispered converse with one of the youngest of the Arizona Rangers, named Woods. On the third day Woods rode up to where Frank Sherlock was directing the operations of his men, pushed a pistol into Sherlock's abdomen and exclaimed:

"You're under arrest—Charlie Bly!"

"No necessity for the shootin'-irons," said Sherlock, or Bly, quietly. "That discharged skunk has been talking to you, that's easy to see. I guess you've got me, kid."

The next day, Conductor Osgood, on the Overland, punched a ticket that read:

"From Santa Fe to Williams." To the holder thereof, Osgood said:

Bringing Him Back.

"Hallo, Captain Christman, you're going some way from your corral. Important business?"

"Yep! I'm making passenger traffic for this road. Bringing back a prisoner."

Next day Conductor Osgood, now east-bound from Williams, again went through his train on a ticket-punching tour and again found Captain Christman, who this time held two tickets, each reading: "From Williams to Santa Fe." With Christman was Frank Sherlock.

"Good Lord!" exclaimed Osgood. "You don't mean that your prisoner is that contractor at Williams!"

"Sure thing!" replied the captain.

"This man that you respect as Frank Sherlock is Charlie Bly, who rode away from the pen in our Territory eleven years ago on the warden's horse.

"An ex-convict from the same prison whom Sherlock, alias Bly, employed a few weeks ago and then discharged, recognized him and squealed on him in the ear of that ranger, young Woods. At Williams they told me that they intend to petition for a pardon for their fellow townsman—since for eleven years he has lived an exemplary life."

"Well say, cap," remarked Conductor Osgood, "railroadin' in these parts does make queer bedfellows. I hope, with the rest of the boys, that the yap that squealed on Sherlock, gets *his*."

They told me a fair one, down there in New Mexico, of the man who was assistant general passenger agent of the Santa Fe in 1906, H. K. Gregory. Gregory

has his office in the Ferry Building, San Francisco, and in a darksome corner of his office, during the chilly time in December, he placed an oil stove.

Within two days the floor space roundabout that oil stove became a gathering place for those railroad men in the building who sought surcease from the ills that cold feet are heir to. On the third morning in walked an assistant-assistant general passenger-agent, and glibly said:

"Gregory, I'd like to know where's that oil-stove I've heard the boys blow about?"

And then, without waiting for Gregory to reply to his question, the assistant-assistant stalked to the dark corner of the room where, prior thereto, he had been in the habit of occupying a certain stool, and sat him down—only to jump up with a yell of terror, pain, and dismay.

His countenance sicklied o'er with the pale cast of repressed thought. Assistant G. P. A. Gregory of the Santa Fe asked:

"Did you find it?"



HE FOUND IT.

The little things in life are the hardest to bear. For example, the call-boy.—From a Tallow Pot's Diary.

THE DAUGHTER OF THE IDOL.

BY JOHN MACK STONE.

Several People Disappear, and
One of Them Does Not Like It.

SYNOPSIS OF PREVIOUS CHAPTERS.

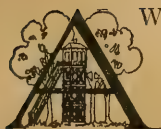
ROLAND BURKE is a young boy sightseeing in San Francisco during a visit to his uncle, Richard Engle, a famous explorer. While standing on the dock he is alarmed by a crowd of struggling men rushing down the street, evidently pursued by the police, and in his astonishment is hustled into the boat for which they are making. One of the men, who is struggling with the others, is kidnaped onto a vessel, and Roland, though unobserved, is also unable to escape. The ship puts out, defying the forts. On the boat he is discovered by Ruth Holland, who also seems to be there against her will, and who seems quite familiar with Richard Engle, though there seems to be some misunderstanding between them. In her cabin Ruth is annoyed by a man named Welch, who seems to have some power among the cutthroats. Engle interferes.

Captain Hawson interferes against the persecution of Engle by Welch, and Welch shows his power by deposing the captain and making him a prisoner. The captain joins forces with Engle, the boy, and Miss Holland. They attempt to recover the ship.

They are captured again, but the captain manages to communicate with a United States cruiser by means of a wireless apparatus in a secret alcove in his cabin. He then puzzles the mutineers by hiding Miss Holland in the alcove.

CHAPTER XIV.

We Create Mysteries.



WAY hurried the man.

Welch closed the door and sat down on one of the heavy chairs near it.

"Go back to the bunk," he ordered me.

That order pleased me most. The revolver Captain Hawson had taken from the captured guard was in the bunk, beneath the blanket.

I lay down, and pretended to sob. Welch seemed sick and weak, and once he arose and opened the door and glanced down the passage to see whether the man was coming back. As he did so, I slipped the revolver from beneath the blanket, and put it in my hip-pocket.

In the next cabin Captain Hawson was cursing and trying to get free of the men who guarded him. He had heard Welch threaten to torture me, of course, and was

evidently trying to do something to postpone the torture.

When the spokesman returned, Welch left him to guard me, and went in to see Captain Hawson.

"Will you tell me what you have done with the woman?" he asked.

"I will not."

"Then we'll torture the boy until he tells."

"You cowardly cur!" the captain screamed. "Let the boy alone. Try to torture it out of me."

"I think the boy will be easier," Welch said, laughing.

"You have no right to torture the boy," the captain said.

"If you insist, we'll torture you first," Welch replied angrily.

"It will do you no good," the captain said.

"We'll see," Welch cried. "There is nothing in the law to prevent me torturing you. You have given us enough trouble. Why did you cut that hole in

the cabin wall? What have you done with the woman?"

"Are there any more questions?" demanded the captain, laughing mockingly.

Welch cursed, and ordered the men to seize him. When they had him in the passage, taking him to the temple-room, where the great áitu sat on his throne, the spokesman left me and went out and locked the door.

Welch was so intent upon the torture that he forgot one thing—he had left the door of the captain's cabin open, thinking no one was in there, and the hole was still in the wall.

Captain Hawson fought them all the way down the passage. As soon as they had gone some distance, I crept to the hole and peered through. There was no one in the captain's cabin, and I crawled into it, and ran to the door and looked out. There was but one man in the passage, and, as I watched, Welch called to him, and he went into the temple-room.

I ran back to the panel. "Miss Ruth!" I whispered.

"Is that you, Roland?"

"Yes."

"What are they doing?"

"They are trying to make Captain Hawson tell where you are."

"You must let me out," she said. "Enough have suffered for my sake already."

"I cannot do that," I answered.

"Let me out, Roland; please. They must not torture him."

"I cannot let you out, Miss Holland," I replied. "They will kill you at sunrise if I do."

"But we must not let them torture the captain to save me," she said.

"The captain would blame me if I let you out," I said. "And Uncle Dick would always blame me."

"But we must try to do something," she said.

"Wait!" I implored.

I ran to the door and looked into the passage again. All the men were in the temple-room. I went out quietly, and hurried in the other direction until I came to the third cabin. There I knocked softly on the door.

"Who is there?" my uncle's voice asked.

"It is Roland, Uncle Dick. Can you

break out? They are torturing Captain Hawson to make him tell where he has hidden Miss Holland. I have a revolver, and there is no one in the passage."

"Stand to one side," he directed.

I stepped to one side, and heard him walking around in the cabin. Then there was a crash as he hurled himself against the door, a second crash, and the lock snapped and the door burst outward. Uncle Dick stood beside me.

The noise of the breaking door had been heard by those in the temple-room, and now they came pouring into the passage to see what it meant. With Uncle Dick at my heels, I dashed into the captain's cabin, and together we slammed the door shut and threw the table and heavy chair against it.

"Quick!" I cried to Uncle Dick.

I ran to the panel and opened it. "Quick! Get in with Miss Holland!" I whispered. "That will puzzle them more. You cannot fight out here."

I half pushed him into the alcove.

"Dick!" I heard Ruth Holland say, and I saw him take her in his arms just as I closed the panel.

The men were hammering at the door, forcing it open. I ran to the hole in the wall, crawled through, and threw myself on the bunk. Just as I did so, the door of my cabin opened, and the spokesman hurried in. He looked at me, made a peculiar noise in his throat, then went out again. I heard him calling for Welch.

As I lay upon the bunk, I heard the men jabbering in the captain's cabin. Welch's voice was raised in anger. Presently he came in to me.

"You helped your uncle to get out of his cabin," he said.

"What if I did?" I retorted.

"Where did you put him?"

"He is not in here."

"He is somewhere near. The men saw you enter the captain's cabin. He's with Miss Holland. Where are they?"

"I have said they are not in this cabin," I said.

"Will you tell me where they are?"

"No!"

He called two of the men, and they led me down the passage toward the temple-room. There seemed no help for it now. Torture awaited me, unless there was a chance for me to use the revolver.

The men left the captain's cabin, all except one left behind as guard, and followed us. I was not used kindly as we made that short journey down the passage. Welch grasped my injured arm tightly, so that the pain almost made me cry out; but I did not give him the satisfaction of hearing me do so.

Captain Hawson was standing just inside the temple-room door, a man on either side of him. They stood me near him, facing the altar.

"Will you tell what you have done with your uncle and the woman?" Welch demanded again.

I saw Captain Hawson's face light up when Welch mentioned my uncle.

"They are together," I replied, to tell the captain what had happened. He flashed me a look of commendation.

"Tell me where they are!" Welch cried. "I have done with your nonsense. I'll take your life-blood from you, drop by drop, unless you tell!"

"I will not tell," I replied.

Welch turned to one of the men who was working at the foot of the steps. "Get the hot iron!" he commanded.

My uninjured arm was free. I reached to my hip quickly, and got a grip on the revolver. The man started toward me with the iron, a wicked-looking instrument, white-hot.

My hand came up quickly, the revolver in it. I fired, not at any one of them, but into the roof of the cabin.

The shot had the desired effect. The men guarding us, astonished at the shot, stepped aside for a moment. That moment was all we needed. I found the captain beside me in the door, found that he was grasping the revolver, tearing it from my hand.

"Back to the cabin!" he cried.

I took him at his word, and, turning into the passage, raced back toward the cabin. He came after me, firing once more as the first head showed at the temple-room door.

But we ran into more trouble as we reached the cabin, for the man left behind as guard rushed at us. Captain Hawson fired again, this time with effect. The guard toppled over in the passage, and the captain grasped his revolver and ran on.

The others were coming down the

passage now, uttering cries of rage, urged on by Welch's screams and curses. We dashed into the cabin and slammed the door. The captain handed me my revolver, and retained the one he had taken from the guard he had wounded.

"Into the alcove!" he commanded.

The door swung back! We sprang in, and the panel closed again. We heard the others crash into the cabin, shrieking wildly, and we heard their exclamations of consternation when they did not find us.

"Keep quiet," the captain whispered to us. "This is a mystery that will cause them some annoyance."

I felt some one's arm go around my shoulders, felt some one's lips brush my cheek, and heard Ruth's voice say:

"Boy! Boy!"

And then a stronger arm was thrown around me—Uncle Dick's. And in the position we were standing it must have been around Ruth Holland, too.

CHAPTER XV.

We Capture Welch.

WE heard Welch come into the cabin. "Where are they?" he demanded.

"They are gone, master," the spokesman replied.

"Gone where?"

"I do not know. When we entered the cabin they were gone. We saw them run in here."

"Search the cabins!" Welch commanded.

We heard them rushing about, opening and closing doors, running back and forth through the passage, and to the deck. After a time all of them returned.

"We cannot find them, master," the spokesman said. "They are gone; they have vanished. We do not like this sort of business."

The men were muttering among themselves.

"Silence!" Welch commanded. "What do you fear? They came into this cabin, and therefore they are some place aboard the steamer. There is no mystery about it at all. They simply have some hiding-place that we have not discovered. Search again."

We heard Welch tell the spokesman

to leave a guard on the cabins, and that he would have the ship searched from one end to the other. The men went away, and there was deep silence. But Uncle Dick whispered to me to remain absolutely silent, for one of the men might be inside the cabin listening.

The alcove was very small, and we began to grow weary. The air was getting foul, too. It was daylight outside now, and the sea had calmed, for the steamer did not roll and pitch as formerly.

While we huddled there in the alcove there was a tiny flash behind us, and that half-distinct crashing which I had heard before when Captain Hawson worked at the wireless. Now he uttered an exclamation under his breath.

"What is it?" Uncle Dick whispered.

"It is the cruiser calling," the captain said. "I gave them a private signal when I was talking."

"Are you going to answer?" Ruth asked.

"It is risky business."

"But they may have something important to communicate," Uncle Dick put in.

"I'll run the risk," the captain said.

We changed positions as noiselessly as we could, so that he could get to the keyboard. Then he reached for the key and answered the call.

His answer was acknowledged, and the message came. He whispered it to Ruth and I, for Uncle Dick could read it for himself:

CAPTAIN HAWSON,

ON BOARD STEAMER FARAWAY:

Cruiser will make island as rapidly as possible, and land marines to protect you if you are already prisoners ashore. When do you expect to arrive at island?

Captain Hawson reached for the key and replied:

Faraway should reach island within forty-eight hours. How near are you?

We cannot reach island for at least three days.

The captain huddled in reply:

Make it as soon as possible. Two of us are doomed to execution as soon as we are landed, but we'll try to detain them.

"O. K.," wired the cruiser, and then the communication was broken.

No sooner had the message been finished than we heard Welch's voice in the cabin again.

"What was it?" he was asking.

"Some peculiar noise, master, so the guard says," the spokesman replied. "He was standing in the center of the cabin when he heard it. It seemed to come from the wall."

"What sort of a noise?"

"He said it sounded like tapping, yet not exactly like that either. He is becoming afraid. All of the men are becoming afraid. These things must be explained soon, master, or there will be trouble. If the men begin to fear—"

"There is no cause for fear," Welch said. "We are still searching the ship. They are somewhere on board."

"But what is to be done, master?"

"Go up and take command of the ship. My wound weakens me," Welch said, "and I'll remain here on guard."

"You want a man with you?"

"Leave one man," he instructed.

We heard the spokesman go away, heard Welch talking to the one man left behind. He was trying to convince the man, Captain Hawson whispered to me, that our disappearance was not due to any supernatural power.

Another hour passed, an hour in that stuffy hole, with its foul air and its distressing heat. We were huddled so close together that we could scarcely move.

"If we only had more room," Captain Hawson said once, "I'd try another little trick."

"Cannot one of us leave?" Uncle Dick asked.

"Not Miss Holland, for she is doomed to die as soon as they find her," the captain replied. "The boy cannot go, for they will torture him. They will torture me, too, and you, Mr. Engle. I fail to see how any of us can leave in safety."

"What is the little trick you want to play?" Uncle Dick asked.

"I want to capture Welch," the captain answered.

"And frighten the men to death?" Miss Holland asked. "Is that your idea?"

"Yes."

"But how will we gain anything by

doing that?" she asked. "They would only hurry to the island all the faster."

"When superstitious men are frenzied by queer happenings, they make mistakes," the captain said. "A little mistake, made at the right time, may save us. If we could only remain in the alcove until the cruiser arrives—"

"That is impossible," said Uncle Dick. "It will be three days, and we'll have to get out of here within the hour. The air is foul already."

"We'll have to fight for it, then," the captain said.

"Then we'll fight for it," my uncle replied.

"But what can we do?" the captain demanded. "If we could slip from the alcove without any one seeing us, and let Miss Holland remain here, with your nephew, all would be well. We don't want to betray Miss Holland's hiding-place."

They ceased speaking, for Welch was tapping on the panel. It was evident that he had either heard us whispering, or had suspected the secret alcove. His investigation seemed to tell him nothing, however, for we heard him leave the wall and go back to the chair.

"I am growing faint," he said to the guard. "Go to the medicine-chest and get me liquor."

The man hurried away. "Now is your chance," my uncle whispered to the captain.

Captain Hawson touched the spring, and the panel slid back noiselessly. In a flash he and Uncle Dick were upon Welch's back, and, while Captain Hawson bound him, Uncle Dick inserted a gag in his mouth.

CHAPTER XVI.

We Receive a Surprise.

BEFORE any of us could make reply, we heard the guard hurrying along the corridor. I'll never forget the look on his face as he entered the cabin and saw the four of us sitting against the wall under the port-hole.

He had a bottle of liquor in his hand; and, when he caught sight of us and saw that Welch was missing, he dropped the bottle on the floor. Then, with an ear-

splitting scream that would have done credit to an Indian on the war-path, he fled up the passage.

We waited in silence, while a chorus of cries on the deck above warned us that the guard had aroused all the crew. They came pouring down into the passage, with the spokesman at their head. He came to a stop just inside the door, the others grouped about him. His eyes bulged; his hands shook.

"You have come back?" he gasped. None of us made reply.

"Where were you? What has happened? Where is the master?"

He shouted the questions at us as swiftly as his lips could form the words. And none of us made reply.

"Why don't you speak?" he screamed. "Are you human beings, or ghosts?"

It was an unlucky word for him to speak. The men behind him looked once, screamed once, then fled up the passage again, shrieking at each other.

"Come back! Come back!" the spokesman shouted at them in English. Then, realizing that they could not understand, he shouted at them in his own language, and they came back, one at a time, silently, staring at us with fearful eyes.

"Where did you come from?" the spokesman demanded of the captain.

"We've been in the cabin all the time," the captain answered.

"Where is Mr. Welch?"

"I am not keeping track of Mr. Welch," replied the captain. "Perhaps he is on deck."

"He is not on deck—he was here watching the cabin."

"Is that so?" the captain asked, smiling.

The spokesman took another step into the cabin. "However, now that you are here, we'll attend to business," he said. "There is a certain duty to perform, and it is already an hour past rise of sun."

"You mean the execution of this young lady?" the captain asked.

"Yes."

"Then there will be no execution. Miss Holland has reconsidered. She is ready to apologize before the great aitu, and to go on with the ceremony. Something displeased her before—that is why she refused to be betrothed."

The man's face lit up. What his people most desired, he knew, was the marriage of Welch to Miss Holland.

"What you say gives me great joy," he said. "The ceremony shall be completed at once. I will have you escorted to the temple-room, and will send a man to search for the master. Perhaps he was taken ill and retired to his cabin."

So we were taken down the passage and to the temple-room again; and there Uncle Dick, Captain Hawson, and myself stood against the wall as before, while Ruth went to the front of the steps and stood ready and waiting.

The man returned with the intelligence that Welch was not in his cabin and could not be found. Another man was despatched; and he, too, returned to say that Welch had strangely disappeared.

The spokesman seemed puzzled. "Why do you not go on with the ceremony?" the captain asked him. "The great aitu will be displeased if you postpone it again."

"The great aitu must have mercy," the spokesman muttered. "There can be no ceremony until the master is here to do his part."

"Then let us go on deck and get fresh air," the captain said. "Send your guards along. The troubles of the night have left us worn out. Miss Holland must have fresh air and rest, or she will not be able to continue the ceremony when your master is found. The wound on her arm, made by the hot iron, has sickened her. Do you want her to be ill when the island is reached?"

His words seemed to bother the fanatic, for he ordered the men to take us on deck and to serve us breakfast there. Then the search for Welch began again.

We really enjoyed those two hours on deck, after being confined below in the alcove, and I never relished a meal as I did that breakfast. We talked of ordinary things, for the guards were always near us; and, after we had finished eating, we sat back near the wheel and watched the sunshine play upon the sea.

At the end of the two hours the spokesman came to us, and addressed Captain Hawson:

"Did you see anything of the master? Where were you hiding? Why did you show yourself again?"

"I haven't time to answer questions which do not concern me," the captain replied. "Are you going to continue the ceremony?"

"We cannot until the master is found."

"Then you'd better hurry up and find him. The great aitu will be angry."

The spokesman hurried away, crying out his orders to the others. Another hour passed; and the guards, squatting on the deck near us, prevented conversation except on ordinary topics. Finally, however, when some of them were called away to attend to other duties, we found that we could talk without being overheard.

"What is to be our next move?" Uncle Dick asked.

"If we could get control of the ship—" the captain began.

"You cannot," Uncle Dick replied. "Even if we conquer the men on deck, the engine-room force will learn of it and will not obey your orders."

"But we may be able to delay the ship, to give the cruiser a chance to overtake us," the captain said.

"If we could do that—" began Uncle Dick.

"We can try," said Captain Hawson.

"Have you a plan?"

"We have two revolvers. Mine has five cartridges in it. How many has yours, Roland?"

"Two, sir," I replied.

"And we failed to get the one on Welch," the captain said. "That is what comes of being in a hurry."

Ruth Holland smiled at us. "I was not in such a hurry," she said. "I have Welch's revolver. I took it while you were putting him in the alcove. He was trying to hide it."

"Good girl!" the captain cried.

"There are six cartridges in it," she said.

"That makes thirteen shots in all, an unlucky number," the captain put in.

"Unlucky, but perhaps not for us," said Uncle Dick. "Now, what is your plan?"

"Let Miss Holland hand you the revolver she has when none of them are looking," he replied. "We'll have to make a fight for it. They'll be careful not to harm Miss Holland, but the rest of us will have to take our chances."

He explained his plan at length, and then we arose and started forward, as though we were ready to go below again. The guard got up lazily to follow us. Two other men moved toward us across the deck.

"Wait," the spokesman cried when he saw us. "I am not ready for you to go below yet."

So we walked on toward the fore-castle, for it suited our plans. Presently we found ourselves forward of them all, with nothing between us and our old barricade near the bowsprit.

"Now!" Captain Hawson cried, and we made a dash for it.

Those on deck realized our purpose instantly. Before we had gained security the bullets were flying about us, but none of them found a human target. We got down behind the barricade without firing one of our precious shots.

The spokesman came running across the deck toward us.

"What do you mean?" he cried. "What are you doing up there? I am ready for you to go below now."

"We don't care to go below, thank you," the captain said. "We prefer it up here."

"I'll send my men for you!"

"You'll send your men below, and go with them, and remain there," the captain said sternly. "Do so at once, or we open fire!"

"You have no weapons," the spokesman cried.

"You see one," replied the captain, holding up his revolver.

"If you don't come down I'll send the men after you!"

"Send them!" retorted the captain.

The fanatic cried out an order, and the men swarmed toward us. It looked like the old battle over again. When the nearest man reached the barrier, the captain fired, and the man fell. The others retreated, but secured places of safety, and from their new positions rained shots at us.

"Down, all of you," the captain ordered. "Let them waste their ammunition."

In a few minutes the firing ceased, and we looked over the barrier to see what was taking place.

"I give you one more chance to come

down!" the leader cried. "The great *aitu* commands it! Death is to be preferred to dishonor, and dishonor will be my lot unless you are conquered. So come down, or I'll burn you out—burn the ship with you—go out with you to meet the great *aitu* in eternity!"

He held a firebrand in his hand, and as he spoke he waved it above his head.

"Will you come down?" he cried.

"No!" Captain Hawson answered.

"Then I'll burn you out!"

"You'll never live to apply the torch!" the captain cried.

He stood up, and leveled his revolver at the spokesman, meanwhile watching the others. One of them fired, and the bullet whistled past the captain's head.

He dodged behind the barrier.

And at the moment he dodged the spokesman gave a scream and ran forward with the burning brand in his hand. I saw it tossed above his head, saw it fall at the bottom of the mass of rope and sail-cloth. The flames sprang out, caught the cloth, and began to eat their way toward us.

Then some one staggered forward from the stern.

"Fools! Fools!" he screamed. "Put out the fire!"

It was Welch.

Whipped into action by his words, the men sprang forward to obey. They threw the burning cloth into the sea, threw the rope after it, stamped out the flames. And while they did so we watched without offering violence, glad that we had again been saved from death, and wondering at the appearance of Welch on the deck.

We did not have to wonder long, for he was a natural boaster.

"The next time you put a man in an alcove," he said, "be sure that there is nothing there on which he can saw his bonds in two, and be sure the panel is so strong that even a wounded man cannot crash through it!"

CHAPTER XVII.

Fair Speech and False Action.

AT first the full significance of what Welch's escape meant did not strike us. It was the spokesman who,

running across the deck eagerly, his face lit up with a smile, anxious to correct himself in the eyes of the man he called master for having set the fire, first brought to us a realization of what it meant.

"Master, master," he cried, "the woman will go on with the ceremony, now that you have returned to us!"

Ruth gave a little cry when she heard him speak, and I heard Captain Hawson curse softly to himself.

"Now there'll be a lot more trouble," Uncle Dick said. "This will be the fight of fights."

Welch was talking to the spokesman, but we could not hear what he was saying. Captain Hawson decided to take the initiative, and standing up behind the barricade he called to those below.

"Miss Holland absolutely refuses to go on with the ceremony, which is repugnant to her," the captain said.

"Then she must die immediately," the spokesman answered.

"There are three of us here, well armed," continued the captain, "who will fight to the death to protect Miss Holland. I serve notice upon you now, that if we are molested we shall shoot. Moreover, we are going to make an attempt to get control of the ship again, and after one minute has passed we'll fire on any one within range who tries to oppose us."

Welch turned to the spokesman and talked rapidly in the man's own language. Then they both went aft, and we saw no more of them for some time. The steamer continued on her way, rushing through the golden sea, carrying us to the strange land where there was nothing to expect but death.

"What do you think they will try to do?" Ruth Holland asked of Uncle Dick.

"It is hard to tell," he answered. "Welch will try some bit of strategy, that is certain."

"Yes," the captain said. "But you forget some things. While Welch is angry enough to try any cruelty, and though he wants to keep in the good graces of the fanatics by pretending to honor the laws of the great aitu, yet he does not wish to see Miss Holland executed. If he conquers us now, and

we are captured, he will have no excuse for not ordering her executed immediately."

"You think we'll not be molested, then?" my uncle asked.

"I think we'll be allowed freedom until the island is reached. We ought to reach the island by to-morrow morning, and it is now almost noon."

Another hour passed, and then Welch appeared again, carrying a white cloth fastened to a stick. He stopped directly beneath us.

"What do you want?" Uncle Dick asked.

"To talk with you. May I come up?"

"Talk from where you are."

"I don't want every one to hear," he said.

"Then one of us will come down," the captain said. "But see that you try no tricks, for if you do you'll never get aft alive."

"I'll try no tricks," Welch said.

Uncle Dick looked at the captain.

"You go," he said.

Captain Hawson left the barricade and went to the deck below, and stood within a few feet of Welch while he talked. Uncle Dick held his revolver ready to use in case of treachery. Although they spoke in low tones, the wind carried their words to us.

"Will you go to your cabins?" Welch asked.

"And be captured?" the captain demanded.

"I'll see that you are not molested until the island is reached."

"I'm sorry, but I cannot rely on your word," replied the captain.

"Certainly you know," said Welch, "that I do not seek Miss Holland's death, and will do anything to prevent her execution before the island is reached. I have consulted the aitu before the men, and have told them that it is better to let matters rest until we are at the island and the high priest can judge you all. The men have agreed to that."

"How do we know it is not a trick?" the captain asked.

"You'll have to take my word for it. If you'll go to your cabins as prisoners, you'll be treated with every courtesy until the island is reached. There the high priest will judge you."

"You expect us to give ourselves up to death without a struggle?"

"There is no way for you to escape," Welch replied. "From what possible source could help come?"

"Perhaps even now it is very near," the captain said.

"I'd advise you to go to your cabins. You'll not be harmed while on board ship. We will leave everything to the high priest."

"We may retain our weapons?" the captain asked.

"Of course I cannot allow that."

"Then we cannot think of returning to the cabins," the captain said firmly.

"With weapons you may make an attempt to regain the ship."

"And without them we would be at your mercy absolutely. I think we'll remain where we are."

"Just as you please," Welch said. "You'll not be molested until we reach the island, anyway. If you think you'll be more comfortable up there—"

"We'll feel safer at any rate," laughed the captain.

"I'll send food to you in an hour or so."

"Thank you," replied the captain, with mock courtesy. "And the food, I presume, may be eaten without any ill after-effects."

"You think I'd poison it?" Welch demanded.

"My dear sir," said the captain, "I think you'd do anything on earth to gain your personal ends. This interview should be terminated here, I believe. Why prolong it?"

"As you please," Welch said again. "But you'll be hungry before the island is reached."

"We had a very good breakfast."

"But we'll not reach the island until noon-to-morrow."

"Then you are not sailing the ship right," the captain said. "You should be off the island at break of day."

"If you are afraid I will poison the food, perhaps you will be willing to go yourself to the galley and pick it out," said Welch. "There is a young lady in your party. It is not kind to her to make her suffer from lack of food."

"You expect me to walk into a trap?" the captain asked.

"Certainly not," he answered. "I give you my word of honor that you'll not be molested."

"Your word of honor?" laughed the captain.

"I have tried to do the right thing at this juncture," Welch said. "You'll not accept the food I offer to send, and you'll not go for it yourself."

Captain Hawson turned and looked up at us, then faced Welch again.

"Will you clear the deck," he asked, "and allow us to go to the galley as we please to get this food? Will you send all of the men below and go yourself, and let one of us guard the companionway while another reaches the galley from the outside?"

"Yes," Welch answered.

"Very well. Then, do so."

Welch turned back to speak to the men aft, and the captain returned to us and told his plans. When the men had gone below Welch called to us, and remained standing near the mast.

"Mr. Engle, I think it better for you to remain here and protect Miss Holland," the captain said. "I'll take Roland with me."

"Do you not fear a trick?" Uncle Dick asked.

"I think we can take care of ourselves," the captain answered. "At the first sign of treachery I'll send a bullet through Welch, and this time it will be the last wound he'll ever receive."

"Very well," said Uncle Dick.

The captain started down, and I followed him, each of us holding a revolver. Welch awaited us near the mast, and when we approached him he turned and led the way aft, to show us that his intentions were good.

At the head of the companionway he stopped for a moment.

"Go below, and into one of the cabins," the captain directed. "At the first sign of treachery there will be trouble."

Welch did not reply, but went below. I stood guard as the captain directed, watching to see that none of the men came up. Captain Hawson went to the man at the wheel, and searched him for weapons. Finding none, he went on to the galley.

Once or twice I looked forward, but there was no one on the deck. There

was only the one way the men could reach the deck forward, and with Uncle Dick watching there it was not likely that any of them would try it.

Just once I looked toward the stern. The man at the wheel had his eyes on the open sea, and so I turned from him and watched the companionway, wishing that the captain would hurry, for I did not feel at all comfortable.

How many minutes passed I do not know. But suddenly I heard the captain's shout: "Look out, boy!"

I whirled toward him. The man at the wheel had lashed it, and had crept upon me. As I turned he sprang, hands outstretched, straight at my throat.

As Captain Hawson rushed toward me across the dack, fearing to shoot because his bullet might strike me, I threw my revolver up before me and fired.

The man crashed to the deck at my feet. Captain Hawson reached my side at the same instant. From below, and from forward, came a chorus of screams and cries. I heard Uncle Dick's revolver speak, saw the fanatics swarming onto the deck forward and charging at the barricade behind which my uncle and Ruth Holland were entrenched.

And then I became aware that the captain was screaming something at me, and that more of the men were charging toward us up the companionway.

"With me, Roland! It was a trick, after all!" the captain cried.

We each fired one shot into the midst of the swarm of men rushing up toward us, and then we started to flee aft. If we could reach the stern, and drop down the side and into the galley through a port-hole, we would be safe for a time, and could at least make a defense.

Several bullets flew by us as we ran. But by dodging from place to place we escaped harm. We dropped over the side safely, the captain leading the way. He reached up to help me, and we got through the port-hole and into the after-cabin. A short run through the aft-passage, and we would be in the galley. They would have a hard time dislodging us there.

But we were not able to reach the galley. Some of the men were still in the passage, and seeing who we were they opened fire. Welch had evidently told

them that the great aitu would be pleased if the captain and myself were slain. It was only Uncle Dick, because he was doomed to execution, and Ruth Holland, because they wanted her to wed a priest, that were exempt from present death.

There was no time, then, to reach the galley, and we dare not remain in the passage. The captain dashed before me and fired, and the nearest man dropped without a sound. The others held back.

"The first door!" Captain Hawson cried.

He fired again to cover our advance, and I crept through the passage at his heels, looking back to watch the companionway. We reached the door in safety, and turned from the passage into the cabin. The captain threw the door shut.

"Bolt the door!" I screamed.

"There is no lock on this door," he replied. "We are in their temple-room."

He struck a match, and by its light we beheld the priest on guard before the aitu creeping upon us. Captain Hawson covered him with the revolver, and he held out his hands to show us that he could do no harm.

"Up the steps!" the captain cried to me.

Once more I found myself at the foot of the idol, behind the draperies. Captain Hawson remained at the bottom of the steps, holding the priest before him. In the passage outside the cabin arose a bedlam of voices. Some one threw open the door and showed a light.

"Back!" the captain cried. "When the first man enters I kill your priest!"

CHAPTER XVIII.

A Battle in the Temple-Room.

"YOUR uncle cannot hold out long," the captain said. "He has only the one revolver and no extra ammunition."

"And we have only two shots left, sir," I said.

"You are wrong there," he said. "When I went to the galley I did not look for food, but for ammunition. My pockets are filled with cartridges."

He handed some of them to me, and

I filled the cylinder of my revolver, and put the remainder in my pockets.

A few minutes passed, and then we heard the spokesman in the passage outside.

"Will you come out and surrender?" he demanded.

"No," the captain cried.

"Then we'll come in and take you."

"If you open that door, I'll kill your priest," the captain cried. "I'll kill him at the feet of the *aitu*!"

Screams and curses answered the captain's speech, for the spokesman translated it to the others. There was silence for a time, and then the leader spoke again.

"Miss Holland and Mr. Engle are in our hands. Unless you release the priest and come into the passage immediately, they shall die!"

"I do not believe you," the captain said.

"You do not hear any more firing on deck, do you? I say they have been conquered and are in our power. Will you come out?"

"No!"

"Then your friends shall lose their lives."

"Very well," the captain replied.

"You still doubt that they are in our hands? I'll convince you," the spokesman said.

He gave a command in his native tongue, and the captain whispered to me that he had told some of the men to bring my uncle and Ruth Holland to the passage. It was true, then; they had been taken.

The captain seized the priest again, and put his revolver at the man's head to prevent him crying out. Then we bound him with ropes and gagged him, and carried him up the flight of steps and laid him across the *aitu*'s great wide lap. He made a peculiar noise in his throat.

"He is begging the *aitu* to save him," the captain said.

"What are we going to do?" I asked.

I did not relish the idea of my uncle and pretty Ruth Holland being slain because of the captain's stubbornness.

"Keep your eyes open, and follow me," the captain said.

We went to the top of the flight of steps, crawled around the narrow ledge

of the pedestal upon which the *aitu* sat, and dropped down behind in the darkness. Then I saw that there was a hollow space beneath the steps, and that from the front of it we could peer out and see the entire interior of the cabin between the *aitu* and the door. It was a small space, but large enough to fire through. And the steps served as a formidable barricade.

"Wait, and make no noise," the captain said.

In a short time there were steps in the passage, and the words of the spokesman came to us again.

"Will you come out?" he cried.

We did not answer. "I have your friends here, to convince you that I have not been speaking untruly," he went on. "They shall speak to you."

We heard him command my uncle to speak, and there was no answer. My uncle was not the man to give himself readily to the work of a decoy.

"You speak to them, woman," we heard the spokesman say.

Still no voice came to us. Then one of them must have seized her in an effort to make her cry out, for we heard her scream; and it cut into our hearts like a knife. And at the same time we heard my uncle's cry of rage, the sound of quick fighting, of blows. The door was burst open, and the mass of fighting, twisting men streamed into the temple-room.

"Don't fire! You may kill your uncle!" the captain whispered.

Some one brought a light and held it high, showing the scene of combat. Ruth had run to the bottom of the steps, and was standing there, watching the fray, sobbing. In the center of the room my uncle fought like a madman with the fanatics, having some advantage because of the smallness of the room.

But he was conquered in time, and held against the wall. "Seize the woman," the spokesman commanded. "Now, get the others."

Two of them seized Ruth and placed her against the wall beside Uncle Dick.

"Where are the others, master?" one of the men asked in his tongue, and the captain translated it to me.

"They are here; find them," was the answer.

We heard some of them start up the steps, heard their cries as they discovered the priest, bound and gagged. The spokesman ran up to them, and fell back with them, too, for none of them dared touch the *aitu*. He sent one of the men for Welch.

Welch was not long in coming.

"What is it?" he asked.

The spokesman explained quickly. "None may touch the *aitu* save you, master," he said. "We are not priests."

Welch made his way up the steps and helped the priest down, and unbound him and took the gag from his mouth. We heard the priest jabbering.

"He says the man and the boy went beneath the *aitu*," Welch told the spokesman.

"Then we have them in a trap."

"Get them out," Welch ordered.

"When you have them, see that all four are placed in separate cabins under a strong guard. We must have no more nonsense until we reach the island."

Welch went across the cabin and stopped in front of Ruth Holland and Uncle Dick.

"I promise you," he said to my uncle, "that you'll have a short time to live when we get to the island."

"Perhaps," my uncle said.

"And I promise you," he said to Ruth, "that I'll not forget your part in this affair, and that you'll be made to suffer for it."

Uncle Dick struggled to reach him, but the men held him back. Then the captain and I had our own business to attend to, for the men were trying to reach us from behind. We opened fire upon them. One dropped down, badly wounded; and the captain secured his revolver and filled it with cartridges, and held it ready.

"We cannot get to them, master," they reported. "They can kill us, one by one."

Welch turned toward the *aitu*.

"Captain Hawson," he cried, "unless you and the boy come out and give yourselves up, I'll take matters in my own hands here and forget that these friends of yours are entitled to courtesy."

The captain made no answer. Welch bade the men carry Ruth to the other

end of the cabin, and then he had Uncle Dick placed with his back against the door.

"I'll give you one minute," he cried.

"You dare not kill a man in the presence of the *aitu*," the captain replied.

"I can kill him in the passage," Welch answered.

He motioned the men to take Uncle Dick outside. Ruth gave a scream and tried to get to him, but they would not permit her.

"Will you come out?" Welch cried again.

"Yes," the captain answered.

Again he made me follow close behind him and be on my guard. We backed out from beneath the steps, and with difficulty reached the ledge of the pedestal. Then we crept around the *aitu*.

"They were touching the *aitu*," the spokesman cried.

And as he spoke the captain opened fire with both revolvers, shouting into the midst of them, sending a hail of bullets down the steps.

"Shoot, Roland!" he screamed to me.

I joined in the fray. The men burst out the door, fleeing. Welch and the spokesman were gone. We dashed down the steps, where Ruth Holland was leaning against the wall, almost at the point of swooning.

The captain did not stop there; but ran to the door, filling his revolvers as he did so. His continual firing unnerved the men, for they did not know we had extra ammunition.

They were fleeing up the passage toward the companionway. We ran after them, keeping up the firing. They fired some shots in reply, but none of them took effect.

When the last one had gone on deck we ran back again and got Ruth, and the captain led us forward the way we had gone that other time, and so to the deck. There were men forward, but when we emerged and began firing at them they ran aft quickly.

It was only the work of a minute to get to our old position of security near the bowsprit. But there were only three of us safe and secure.

Uncle Dick was in the hands of the fanatics.

(To be continued.)

Signaling Without Semaphores.

BY ARNO DOSCH.

SPEED demands safety just as certainly as darkness demands light. The semaphore, with all its various means of operation, has done yeoman service in this direction, but something even more nearly perfect is needed to meet modern conditions. The visible signal on the track will some day give way to the visible and audible signal in the cab, with its accompaniment of the automatic stop. This article describes the beginning of the revolution. Read it. Some day it will be history.

How an Engineer Will Get His Signals in the Cab, Be Automatically Controlled, and Be Able to Telephone, All By One Third Rail.



TELEPHONE on the train connecting with distant cities so that a traveler can conduct business from a speeding coach as if in his own office is

one of the striking features of a three in one invention which Fred Lacroix, a young railroad man of twenty-four, has just placed in successful operation on twelve miles of the Erie Railroad in New Jersey. The two other parts to the combination are a cab signaling system and an automatic stop, and the whole proved its efficiency before half the signal engineers and many financiers of New York.

The inventor is staking his success on the practical working of the safety appliances, but the appeal to the general imagination is in the telephone. For though the public at large does not know when it travels whether the road is automatically controlled or operated by hand signals, it can see a telephone and feel a thrill of wonder when it is possible to sit in a car and talk with some one a thousand miles away while the train is whirling over the country.

As to safety, Lacroix's system has

all the advantages of the automatic block in preventing collisions, and goes a step further by stopping the train if the engineer does not heed the signal. The fact that its method of cab signaling is simple as well as certain is also worthy of comment.

First in England.

Up to the time Lacroix appeared with his device the most advanced form of signaling included only cab signaling and the automatic stop. This combination has been used, moreover, only on a few miles of road in England and is not thoroughly established as yet. The difficulties encountered have been chiefly with the weather conditions, necessitating the use of steam heat to melt the ice and snow at the points of contact between the engine and the signal arrangements on the track.

With Lacroix's system a third rail is used, and there is only such inconvenience as is caused by ice on a third rail anywhere, and that is not too great to obviate, as shown by the success of third-rail systems in the open country.

The telephone in the cab is entirely

new in signaling, and has immediately commended itself as a time saver. It provides a quick and direct means of communication between engineer and operator and permits the issuing of orders to trains on the move at a distance from a station.

Stopped from Outside.

A light third rail does the work. It conveys the signals, applies the brakes when necessary, and acts as a telephone wire. The mechanism is on the engine, where it is brought into the roundhouse for inspection, and all that can get out of order along the track is the track circuit, containing a battery and a track relay. If anything should happen to these the train will be brought to a full stop.

The engineer receives his information as to the condition of the track ahead from a green light, which shows in his cab as long as the right of way is clear. Directly under it is an electromagnet, which derives its magnetic powers from a shunt-wound dynamo driven by steam pressure from the engine. When it has its full energy it is sufficiently powerful to hold up a heavy iron arm, which, when in contact with the magnet, does not affect the air-brake valve.

If anything happens to the current so that the magnet loses its power, the heavy iron arm falls, opening the valve and setting every brake in the train. And, as the air escapes, it passes through a whistle, which it blows in warning. As the current also supplies the light, it goes out simultaneously with the dropping of the arm.

In the same circuit with the light and the magnet is a shoe of steel brushes, made to scrape the third rail and communicate an electric current to its surface. As long as the third rail is in a closed track circuit not broken by the presence of another train, the current which is local to the engine flows out through the third rail, making a complete circuit of the track wires and returning through the wheels and body of the engine.

If there is another train on the track and the circuit is not closed, the engine circuit is abruptly broken by the same

opening in the track circuit which interrupted the track current, the magnet loses its power, the arm drops, the brakes are set, and the train stops.

The whole mechanism of the signal system in the engine is so constructed as to respond promptly to the indications it receives from the third rail. To make it effective it is merely necessary to have the track circuit closed if the track is clear and open if it is occupied.

In doing this, the principles of the ordinary automatic block system are applied. The wiring is different, in order to bring the third rail into the track circuit, but there is no essential change. For this, as for all automatic systems, the track is divided into blocks or sections, each of which is entirely separated from the rest for signaling purposes.

Failure Made Safe.

A current of electricity generated at one end passes down a rail to the other, where it goes through a relay containing an electromagnet, which must remain energized in order to keep the circuit closed. In other automatic systems, the current then passes to the other rail and returns to the battery, but in the Lacroix system a slightly more complicated arrangement is necessary in order to permit it to pass through the short sections of third rail at both ends of the track and include them within the block. In both, the track circuit depends upon the magnet in the relay remaining energized, but this it will only do while the full current is passing through it.

As soon as an engine runs into the block, the wheels and axles form a short path for the electricity, and only a small amount of it passes through the relay, not enough to hold the armature and keep the circuit closed.

Points of Difference.

On the ordinary automatic system, the opening of the circuit, whether from the presence of a train, a broken rail, or a landslide, sends the signal on the semaphore to danger. The working of the Lacroix system is quite different.

When a block is occupied or in trouble the approaching train first learns of it

when the shoe strikes the third rail at the end of the block. Previous to that time, while the train was passing over a clear track, whenever the shoe struck a section of the third rail the engine current passed out through it to the track circuit, then through the track relay, which was closed, back to the track and home through the wheels and body of the engine.

But as soon as it strikes a block where the track current has been short-circuited by the presence of a train or by other trouble, the current cannot make a complete run through the track circuit on account of the opening in the relay caused by the lack of power in the magnet.

Improvements to Come.

The action is instantaneous. The current does not leap from the shoe to the third rail, because it cannot return. The effect is to break the circuit in the engine, which results in extinguishing the green light, setting the brakes, and blowing the whistle.

Each block is connected with the third-rail sections at both ends of the block, so that trains can never approach each other nearer than the length of the block plus the lengths of the two third-rail sections.

On single tracks, such as the Erie branch on which it has been installed, the blocks overlap both ways, so that trains will not collide head on at the end of a block. At public demonstrations it has been shown that head-on collisions could not happen.

Two engines racing toward each other, with the throttles wide open and the engineers leaning from the cab windows, were stopped at the ends of a block which they both approached from opposite sides. As soon as each struck the third-rail section, the air-brakes were set and both engines were brought to a standstill within a few hundred feet, although the engines were still puffing away with the throttles wide open.

The entire possibilities of the invention are not shown as yet, because the third rails are not continuous. The sections are only long enough to give the air-brakes a chance to stop the train

before the brushes have passed off, which is five hundred feet on the Erie. While the train is passing from one third-rail section to another, it is entirely cut off from communication.

There is, however, nothing to hinder the third rails from being continuous with only short breaks between blocks, and it will be a necessity if the telephoning possibilities are used.

There is at present no provision giving the engineer warning of the danger ahead until suddenly the air-brakes are opened and the train is brought to a stop by an emergency measure. This can be remedied, however, by more extensive wiring and the use of distant signals, not unlike those in the automatic semaphore system.

Through them the engineer is informed several blocks in advance of the condition of the blocks he is approaching. At present the same electric current which operates the signals also applies the brakes, and, before he can grasp the throttle, the train is being stopped automatically, the amount of jarring the train receives depending on the brakes.

A Switch for Telephone.

There is as yet only one current generated in the engine and this must be used for both the signaling apparatus and the telephone. Obviously it cannot be used for both at once. This is recognized by the inventor, and he has prepared a switch to be thrown whenever the telephone is in use. But this entails the consequence that while the telephone is in operation the signaling system is dead. To be running blindly ahead with no signals to guide, would be suicide, as even the automatic stop is out of commission.

A single current is feasible, however, if the telephone is to be used for signaling purposes only, as the telephone is only called into requisition when an engineer receives information as to the track, but, when it becomes a convenience for travelers, the telephone will need a current all to itself. This can be taken care of by providing an alternate current which can be used over the same rails and wires without interfering.

A PINK-TEA BO.

BY CHARLES BATTELL LOOMIS.

Something Might Have Happened If They Hadn't
Put on the Binders While He Was Cutting the Fat.



H, yes, Uncle Jabez is the most romantic of men. Why surely I've told you of the time that he put a new piano in Stella Wyngrave's hen-house as a wedding-present to her?"

I assured Mrs. Dorkins that that particular manifestation of her Uncle Jabez's ultra romanticism had never before been told me.

"Why, yes. You see, Stella and her husband had gone into the poultry business just after they married, and she had given up her music. Uncle Jabez hadn't given her any wedding-present and she felt a little hurt, but one night when she went out to the hen-house to lock up, she found in the big scratching pen a brand-new piano with the legs lying beside it and a card, 'From Uncle Jabez.'"

"I should think that it might have scratched the piano somewhat."

"It did, and it gave them no end of trouble to get it into the house, but that was Uncle Jabez's romantic way, and so I say I never know what he's going to do next, and

now that we've heard he's at last struck it rich out in the Klondike, there's no telling how he'll come back or when he'll turn up.

"We've always been friendly with him, and we sort of hope that if he does come back East, he'll take a fancy to Marietta Ethella and give her a musical education."

I was occupying a room and boarding with the Dorkinses while pursuing my medical studies. They did not keep a boarding-house, but took me in because my father and Mr. Dorkins had been boys together and Mrs. Dorkins thought it "so romantic" for me, the second generation, to be in the way of having kindnesses shown me just because my father and Lester Dorkins had learned swimming in the same swimming hole.

Mrs. Iolanthe Dorkins had a nose for the romantic that I have never seen excelled. Her own marriage to Mr. Dorkins was in the highest degree romantic, because she had gone to buy a pair of shoes in the store where Mr. Dorkins was a clerk and he had had the hardihood to tell her



"QUITE A GRAFT, MY BOY."

she pinched her feet. She had admired his manliness in telling her what she confessed was the truth, and she had ordered the next size larger and had fallen in love with him at the same time.

Mr. Dorkins had a vein of the romantic in him which took the form of admiring his wife's appreciation of things removed from life's humdrum, and Marietta Ethella lived in a dream of romance where every passer-by was a potential prince and the grocer's boy was a kidnaped crown prince of the house of Ruritania.

Knowing them as I did, and being of an age to enjoy a bit of practical joking, I set to work to devise some scheme by which I could provide a little innocent pleasure for myself and a bit of mystification for them.

It was not long before I had decided on a plan rich in promise; I would get some tramp to play the returned uncle, he should make a fat thing out of it in the way of rich food and cigars, and when all was over I would confess my complicity in the affair, pay all damages, and take the whole family to some "Rupert of Hentzau" sort of a play.

It so fell out that the following Saturday lent itself to my plan quite as if the day had been prepared for me; Mr. Dorkins being detained at home by a slight cold, I having the whole day free, and Mrs. Dorkins beginning to wonder when Uncle Jabez would return to his home in the East.

I had kept him to the front as a topic of conversation and had brought out recitals of his many "romantic" actions, and the time was ripe for the entry of Jabez Patchen, Romanticist.

The suburban villa of the Dorkinses covered a half acre, and was mostly lawn and old-fashioned "romantic" flowers, with one peach-tree which Mrs. Dorkins treasured as the apple of her eye because the pit from which it sprang had been given to her by a favorite nephew, who died next day of indigestion brought on by eating the peach, which was not fully ripe.

This tree had never borne fruit before, but now was loaded with Morris Whites, which promised to be delicious when they should have become ripe.

The house itself was one of the Swiss

chalet order for obvious reasons, and while the furniture was not costly nor the decorations rich, the amount of bric-à-brac with romantic associations festooned around it was remarkable. Knick-knacks from many lands fairly littered center-table, piano, mantel, and writing-desk in the old-fashioned parlor.

It was to this home that I purposed leading some fun-loving tramp who was at the same time honest, and that is why I set out right after breakfast to search for him.

Mrs. Dorkins was preparing to do up plums, Mr. Dorkins was nursing his cold in a red wrapper covered with white roses (a gift from his wife), and Marietta Ethella was in a hammock on the veranda, reading, "How Prince Florizel Came to His Own."

A walk of half a dozen blocks brought me on a tramp, but he was so villainous looking, so destitute of any hint of refinement that I passed him by. But two blocks farther on I caught sight of a trampish fellow looking at a map in the window of a little real-estate office perched on a knoll that commanded a view of "highly improved" property.

The fellow wore a frock coat whose better days must have been coeval with the closing years of the Civil War, and his hat looked older yet. He had a red handkerchief in place of a collar and his shoes had not at any time been mates.

His trousers had surely first been worn at an afternoon tea, for they were of a light material and of what had once been a fashionable cut, but they were too tight for the sturdy legs that were now within them.

Here was the tramp I wanted—if he had a sense of humor. I hailed him. "Good morning! Quite a boom in real estate, isn't there?"

"Yes," said he, turning and looking at me with an insolent but whimsical eye. "I was thinkin' of buyin' a lot or two an' makin' it over into a restricted park."

Mrs. Dorkins would have believed his statement, but I was delighted at his chaffing power. A tip or two, and he would play the part to perfection.

He looked to be about forty-five; his beard, grizzled and wiry, had been allowed to seek the outer air for five days

at least, and his hair had not known the caressing touch of a comb in many a day. His hands were fairly clean and he did not look like a drinking man. "Made to order."

"I'm sorry I can't sell you a block," said I, "but I got rid of my last holding a few days ago. But, say, I'd like to have a little talk with you if you have time."

He rubbed his musical beard, knotted his eyebrows, and said, "I have an appointment with a capitalist, but it will keep."

Then, without telling him who he was supposed to be impersonating, I told him what I wanted him to do; to make himself perfectly at home if Mrs. Dorkins should invite him in, and to throw himself on her hospitality fervidly.

He hesitated. Perhaps he was thinking of parlor carpets and his rough shoes.

He gave me a keen, half-suspicious look. Then I explained that I was a medical student, bent on having some fun with good friends of mine; showed him a five-dollar bill that should be his if he played his part well, cautioned him against any malicious mischief, and, pausing for his reply, got a poke in the shoulder that nearly toppled me over, as with a gusty laugh he said, "You have picked a winner, Doc—what?"

"Good, just be easy and natural, you know. They're a little bit dotty on tramps. Help yourself to cigars—I'll make it good to them afterward, you understand—"

"I don't give a whoop in Ohio whether you do or not, but I'm the man for the round trip and I want to say right now that it appeals to me."

Here he fetched me a good-humored slap in the ribs that brought me to the verge of the gutter, and I had to ask him to restrain his exuberance.

But I liked my tramp. There was no Harvard reserve about him. He was human.

I explained to him that my friends were long on romanticism and short on humor, and that I felt a little good-natured practical joke at their expense was perfectly legitimate.

"Yes, and mild for a medical student," he said.

"Well, I'll hurry back to the house and you come on in about half an hour."

I was turning away when he said, "Say, w're is this joint?"

"To be sure." I gave him clear directions and went on my way, returning by another street so that Dorkins would not connect me with the advent of the tramp.

I had been at the house a little over half an hour before my tramp appeared, and he seemed about to pass the house, looking beyond as if he had misunderstood my instructions.

I coughed significantly, and he looked up, shrugged his shoulders and shambled around to the side gate. Mrs. Dorkins has what she calls romantic palings enclosing the place—"as they used to be in the old story books."



"I WAS THINKIN' OF BUYIN' A LOT OR TWO."



In a few moments, I heard a whispered call in the hall, "Father, Marietta Ethella, Mr. Tompkins!" and I knew that the curtain had risen.

Marietta Ethella tumbled out of the hammock, dropping the book, I rose from the rustic chair, and Mr. Dorkins came down from his room in his fancy wrapper.

"Oh!" said Mrs. Dorkins, breathing heavily, "there's a tramp in the kitchen, and while I'm not sure I can almost be reminded of your uncle. He looked test us. What shall I do?"

"Did he just come down the side street?" I asked.

"Yes—"

"Why, the minute I saw that man I was reminded of your Uncle. He looked sort of amateur theatrical. I'll bet a hat he is.

"Just dress him up in your Sunday clothes, Mrs. Dorkins, kill a fatted calf or two, and give him the time of his life. Open a can of sardines and a keg of beer and an oyster or two. You won't regret it."

She bit beautifully, and if she had any doubts of her uncle's identity they were now removed. We all went into the kitchen and on the way in I was suddenly inspired.

The tramp, a born actor, was standing in a very humble attitude drinking a glass of milk which Mrs. Dorkins had poured out for him.

His back was to us, but his pose was one to win sympathy, for he reminded me of a peasant of the Millet variety—down-trodden and cloddish.

The world had been hard on the poor fellow, and I gave the Dorkins's credit for a feeling of real sympathy for tramps in general—their very wanderings must appeal to the good lady as somewhat "romantic."

My inspiration was to make it easier for the Dorkinses to do a rather unusual thing by suggesting it to them on the plea of the obligations of universal brotherhood.

"Hallo, my poor fellow," said I, "aren't you the man I was talking to down the street a while ago?"

He turned, his face lighted up and he said in broken tones, "Thank you kindly, sir, yes, I am. You said the first kin' words I'd heard in a week. If all the world was like you—"

I held up my hand to stop his flow of praise and said, "Mrs. Dorkins, here is a man and a brother. He is as good as we are, but he's never had a chance. Why not let him have one?"

Mrs. Dorkins gave me a grateful look. I was making her action natural. "Why not indeed?" said she, and I'll do her the justice to say that I think she was sincere and perhaps forgot for a moment that she supposed that this preposterous looking fellow with the insolent eyes was really her uncle.

As for me, one can imagine my joy. I foresaw to what lengths this sentimental couple would go to make it easy for this modern Kit Sly.

"Won't you have something more to eat?" asked Mrs. Dorkins.

With what I considered a touch of genius, the fellow said, "No, thanks. I had something to eat bright an' early an' on'y for walkin' so far I wouldn't need this. I'm not a great eater."

He felt that such sincerity on his part would appeal to this kindly lady; she felt that "uncle" was acting his part well, and I felt that he was in his way an artist.

While Mr. Dorkins went up-stairs to see if he could find a suit of clothes that would do for the poor fellow and Mrs. Dorkins returned for the time being to her plums, Marietta Ethella showed the tramp into the parlor and suffered him to pat her head in a fatherly fashion that made my gorge rise.

I was glad to see her leave him and go out to her book. I was also astonished to see him slyly slip a little silver ornament into his tail pocket. I saw this through the crack of the door and hastened into the parlor.

He stepped over to a box of cigars and transferred at least thirty to his breast pocket, winking at me and saying, "Quite a graft, my boy. I owe you something for this. These folks are soft enough for cushions. Here's where I lay down on 'em for all I'm worth."

I did not mind the cigars, but the silver trinket was one that Mrs. Dorkins

had obtained in one of her romantic ways and I knew it was endeared to her by associations, so I said:

"Cigars are all right, but I didn't mean you to help yourself to bric-à-brac." This with a significant glance at his tail pocket.

He laughed impudently. "Graft is graft, young feller, and when I play a game I go the whole hog."

As he spoke he went to the mantel and helped himself to two silver candlesticks which his capacious pockets concealed in short order.

Quite forgetting that I had fostered Mrs. Dorkins's idea that this man was her uncle, I went out to the kitchen and said, "Mrs. Dorkins, you'd better call your husband and show this man to the door. He's a thief. He's helping himself to bric-à-brac."

She laughed a silvery laugh. "Why not?" said she. "The dear soul! You leave him alone. When it comes time for him to disclose his identity he will take all those things out of his pockets and we'll have a good laugh over it."

"But," said I "he *isn't* your uncle." She looked at me coldly. "I don't know what you mean."

I didn't know what I meant myself. I didn't know what I could have meant to bring a disgusting old rounder into a respectable house and give him a chance to loot the place.

Of course I'd have to make good, and I'd rather make good than confess to these kindly people that I had put up a senseless job on them. It didn't look funny to me any longer.

I went back into the parlor. The tramp was not there. A little silver traveling clock was also missing.

I hurried out onto the veranda and saw, to my horror, the tramp fondling the hair of the innocent child who, supposing it was her great-uncle, let him do it, although I could see she shrank from the greasy coat.

"Come here!" said I, in peremptory tones, and with mock contrition he lumbered up to me.

"Aren't you ashamed of yourself?"

"Shame died in me in me third year, young feller. I regretted the loss, but I didn' go into mournin'."

His pockets were positively bulging,

and every bulge meant several dollars out of my pocket unless I could get him to disgorge.

"Nice location, this," he said, looking out over the rolling country to a branch of the Hackensack in the distance. "And early peaches, too. Say, cull, what's the matter with us havin' some fruit? Fruit in the mornin'—what's the sayin'?"

"Then don't butt in, Lorenzo. The lady of the house"—he broke into a laugh—"the lady of the house is doin' up plums. How can I show her me gratitude? W'y, I can pick her peaches for her to do up. Unripe for eatin'—just right for cannin'."

He started down the steps that led to the garden. Marietta said, "Unc-er-Mr. Man, please don't pick those



WE ALL WENT INTO THE KITCHEN.

"You leave that fruit alone," I growled. "It isn't ripe and Mrs. Dorkins sets great store by it."

"When a feller tramps as I do," said he blandly, "his digestion laughs at a little thing like unripe fruit. I like peaches and I'm go'n' to help myself. Have some, Flossy?"

"No, thank, you, sir," she said, trying to control a tendency to giggle.

"Will you keep out?" I asked earnestly.

"Do you own this fruitery?" said he, mimicking my tones.

"No."

peaches. My mama is keeping them for papa's birthday week after next."

"Flossy," said the horrible man, "what if some one broke in here in the night and stole those peaches—then where would your pa's birthday treat be? I will pick them now and they can be made into brandied peaches for his birthday!"

Lightly he ran down the steps and over to the tree with its bushels of fruit. As for me, I went into the house and called Mr. Dorkins, but he was up in the attic and did not answer. I went to the kitchen. Mrs. Dorkins was not there, but I heard her in the cellar.

Down to the cellar I went, and said to her, "Mrs. Dorkins, that man is out picking your peaches."

She shook her head calmly. "Uncle Jabez wouldn't do that even in joke."

"But how do you know this is uncle?"

"Because he acts like him—because his disguise is so splendid. It's just the way he would act, and he'd be sure to make up so that I couldn't see any resemblance to him."

I left her hurriedly and ran out of doors, determined to appeal to the tramp's finer feelings.

But he had none. When I reached him he had actually half stripped the tree, putting the peaches into a basket he had found there by cursed luck.

"Look here, you're a beast, that's what you are! You're a vandal! What kind of return is this for these people?"

He looked at me insolently. "The glass of milk, and the cigars—not forgettin' the bric-à-brac?"

As he spoke he went on picking the Morris Whites—peaches that were the apples of Mrs. Dorkins's eyes. Suddenly I heard a hoarse laugh at Mr. Dorkins's bedroom window. We looked up. He was watching us and yet, thanks to his fatuous belief in the identity of this tramp with his wife's uncle, he was merely amused at this act of rapine.

I yelled up to him, filled with shame and contrition and ready to eat dust in my humiliation. "Mr. Dorkins, I must apologize to you for this. Hold me personally responsible. I put up a joke on you. This man is a tramp."

"Yes, he looks the part, but," wheezed Mr. Dorkins, his sore throat preventing fuller tones, "I think that he will admit that he is my good wife's uncle and he knows that when he comes back we're only too glad to let him do what he wants with our things. I can't find that suit, Uncle Jabez, but now that the cat's out of the bag it doesn't matter."

"Great Scott!" said I, running under the bedroom window, "I tell you that this fellow is my tramp! I hired

him to come here and take all that was coming to him, and he's turned out a thief. He'll go to jail for this!"

The noise of my voice had brought Mrs. Dorkins out and Marietta Ethella had again dropped her book and was leaning over the veranda-rail, all eyes.

The tramp sunk his teeth into a Morris White and then ejected the unripe fiber on the ground. He also gave the basket a kick. Beast!

But nothing would shake the faith of these people in the man they had befriended and I saw that I would have to pretend to give up and go away, after which I would telephone for an officer.

I felt sure the fellow had audacity enough to stay there over at least one meal. Perhaps he would again fawn over that innocent if sentimental child.

Suddenly the fellow straightened himself, threw his hat on the path, ran his hands through his tangled hair a few times, reducing it to order in a remarkable manner. Then in tones that bespoke gentility he said:

"Young man, you would have had more fun if you had picked out a real tramp, but he couldn't have had half as much fun with you as I've had."

He took out of his pocket a clock, a paper-cutter, and a candlestick.

"These go back where they belong," said he, "also the rest of the things I picked up. The peaches, unfortunately, I can't restore, but I'll set out a young orchard this fall if Iolanthe will let me.

"I told you, young man, you'd picked a winner, and you have. I won enough the last year in the Klondike to make all of us happy—and if you'll forgive me I'll let you come in."

I looked at the Dorkinses. Mrs. Dorkins was hugging herself at the romanticism of the morning. Mr. Dorkins was looking ruefully at the peaches.

From a waistcoat pocket the tramp took a card-case, out of which he extracted a card which he handed to me. It read, "Jabez Patchen."

The joke was on me.

**Even a yard engine needs steam. Don't forget the grub-bucket.—
The Landlady.**

OLD-TIMER TALES.

With the First Vanderbilt.

BY C. P. GRENEKER.


THE old-timers are the most appealing, the most romantic, the most interesting section of the railroad community. Men who have helped to make history which we are living upon will always have a charm for the popular mind that cannot be described, and is held by no other set of men. Here we are presenting the first of a series of Old-Timer Tales which we feel pretty sure will be one of the hits of our career. Turn to the Editorial Carpet and see what else we have to say about this feature.

There is still alive and active a man who was in the employ of the late Commodore Vanderbilt's first railroad. He was a railroad man even before the famous commodore came on the scene, and for four years he was one of the magnate's right-hand men.

The stories that he tells of the old days are not tragic, nor are they of great historical value. There is not much mystery or romance concealed in them, but they do show one thing that is sometimes too much neglected in the little stories of the great—the human side of the founders and guardians of great industries and colossal fortunes, their faults and virtues that make them kin to the rest of us.

It is for the sake of the light that they shed on the purely human qualities of the first Vanderbilt that these stories are related.

The Old Freight-Agent on the Harlem Tells Stories of the Early Days When Commodore Vanderbilt Was Rising to Power in the Railroad World.

T was ten o'clock of a Sunday morning in June, 1863. The place was the bedroom of Commodore Vanderbilt, the new president of the Harlem Railroad. The speakers were Commodore Vanderbilt, still in bed, and I. D. Barton, his first freight-agent, formerly a Harlem Railroad conductor. The story is told in Barton's words.

"The commodore had a habit of lying in bed late Sundays, although he was an early riser week-day mornings. Railroad-

ing was comparatively new to him; he had just got hold of the Harlem road; but he had a faculty of asking questions, and it was with this object in view that he sent for me to discuss freight-rates.

"I was ushered into his bedroom. The old commodore pulled himself up and began firing queries at me.

"What does it cost to ship a ton of coal from here to White Plains?' he asked, pointing his index finger first to the right and then to the left. He had a habit of doing that when he talked.

"I told him.

"'Umph! Huh,' he sort of groaned, and, after a pause: 'And how much for a horse and buggy?'

"Again I gave him the amount.

"There was another pause. Finally: 'And how much for a barrel of flour to White Plains?' I told him the rate. Without hesitation the old commodore, now in a sitting posture, said gruffly:

"'Put your rates down on flour and coal; poor people use those things; but anybody that can afford to have a horse and buggy can afford to pay high freight-rates. Put your rate up on horses and buggies.'

"That ended the 'freight meeting,' commented Barton, "and the next day I had a new tariff. When I read of this teapot tempest which is being raised over rate legislation, I often wish that the old commodore, with his common sense, were here to spread oil on the troubled waters. Horse sense is what he had, and a heart as big as this sofa."

Vanderbilt's First Pensioner.

We were seated on a plush-covered divan of tremendous proportions, in one corner of which half reposed the figure of the commodore's first freight-agent, a man now seventy-six years of age, who has seen service on several roads as general superintendent. His last position, which was given up on account of advanced years, was in charge of operation of the Brooklyn Rapid Transit.

"Yes, he had the kindest disposition of any man I ever knew," continued the veteran. "One day we were standing near the ticket window at the Twenty-Sixth Street station—that was at Fourth Avenue—when a woman with four or five children came up and asked for tickets to Chatham. She lacked one dollar of having enough money.

"The commodore never missed anything. He overheard the woman's conversation with the ticket-agent, and, calling me aside, told me to pay the difference and charge it to 'profit and loss.' Before carrying out his wish, I ventured to ask the woman why she wanted so many tickets, and the cause of her financial embarrassment.

"She replied that her husband could

not get work in New York, or, at least, I should say she began to tell me that when the commodore, who I thought was some distance away, broke in with:

"'What? Can't get work in New York? Your husband must be a fine specimen,' he thundered. He had followed me up to hear what I said.

"'No, yure rivirince,' explained the woman; 'it was this way.' And with that she led up from around the corner of the station a one-legged man, who was her husband. 'He wure run over by er train on this very road.' The man nodded, as though to confirm his wife's story.

"'When?' demanded the commodore with some passion. He had just taken possession of the road.

"'Some years ago,' answered the woman. 'And he niver got a cint.'

"'Then he'll be my first pensioner,' said the commodore; 'and,' he added thoughtfully, 'I trust my last.'

"Yes, indeed," commented Barton, heaving a great sigh, "those were great days. Dick Croker, Tammany's old boss, was a machinist in the Harlem shops at Thirty-Second Street; his brother George drove a horse-car on the Fourth Avenue line, and another brother, Ed, was an engineer on the Harlem.

"In those days, just after the commodore got hold of the road, his son, W. H. Vanderbilt, was farming over on Staten Island—a regular country farmer—and he used to sell hay to the Harlem road for the horses that pulled our trains from Tryon Row.

Dropping Mule-Power.

"I can't just recollect the year, but the commodore got tired of mule-power through the tunnel, and ordered me to run the trains from Twenty-Sixth Street up with engines. Yes, I was general freight-agent at the time, and I was also assistant superintendent, but for both jobs I got only seventy-five dollars a month.

"I did as I was told, and soon the city authorities were after us, as all of the property-owners objected to the smoke and noise from the engines. This tunnel was the one under Fourth Avenue, and both sides of the avenue were lined with fine dwellings.

"The commodore defied the authorities until at last a squad of policemen was sent to capture any engine that went through the tunnel pulling a train. The commodore saw to it that I was on that engine. There were about ten policemen, and they started for us at Twenty-Sixth Street. Four or five were daring enough to climb on the tender, and I tell you we gave them the ride of their lives, and a free bath from the tender tank into the bargain. When we reached Forty-Second Street, there wasn't one of them left to tell the tale.

"At the end of the tunnel the commodore was waiting for us. I jumped off, and the train went on. Presently the police squad came charging through the tunnel with an Irish sergeant in command. He was one of the four whom we had first drenched and then discarded. He was a sorry spectacle.

"There the commodore was, in white stove-pipe hat and long black frock coat. A most commanding figure he was. At the sight of him the policemen halted. Before the sergeant had time to say anything, the commodore turned upon them with:

"'What do you impertinent rascals mean by trespassing in this tunnel?'

"'Trespassing, do ye call it?' snorted the Irishman. 'A dum foine naime it be for murder.'

"The remark so amused the commodore that he laughed until I thought he would burst. The bedraggled appearance of the drenched policemen helped matters along, and soon the sergeant, realizing how he had been worsted, joined in the laughter. The situation suddenly dawned upon the Irishman. He walked up close to the commodore, and in a whispered tone said:

"'Ye won't mintion it, will ye, yure honore—between two gintlemen?'

The Question of Salary.

"The latter remark I thought would result fatally with the commodore—he laughed so long and heartily. But 'between two gintlemen,' enough had been said, and the incident was closed. The secret was not divulged.

"I was saying I got seventy-five dollars a month. I was handed down, as it

were, when the commodore bought the Harlem road, for I had served under five presidents of the same company before Cornele—that's what we sometimes called the commodore—got hold of it. He never thought to inquire as to my salary.

"The road was making money—you remember, a year after the commodore was elected president of the New York Central he declared a stock dividend of eighty per cent—and one day, while out driving with him, he asked, somewhat abruptly: 'What salary are you getting, young man?'

"I told him 'seventy-five dollars' as meekly as I possibly could. 'More than you're worth' was his curt reply. But at next pay-day, I think it was less than a week off, I found that my salary had been doubled.

A Ride with Cornele.

"I shall never forget this particular ride I took with Cornele. I think it was a Sunday morning. At any rate, we were going up to One Hundred and Third Street to look at the new stock-yards. I got in the buggy at Twenty-Sixth Street, and before we started the commodore says to me: 'Young man, they tell me that tunnel leaks.'

"I knew it only too well, but I wouldn't admit it. So I thought by giving an evasive answer he would forget.

"'I think I'll drive through and see for myself,' said he.

"I remonstrated with him, not that I cared so much about the leaks, but on account of the danger of driving a blooded pair and a light runabout through the tunnel. He appeared not to hear me.

"Whipping up his horses, we started bumping over the ties. Did he find any leaks? If you had known the commodore you wouldn't ask. As I said, the leaks were there, and he found them.

"After emerging from the tunnel at Forty-Second Street, the commodore turned into Fifth Avenue. It was then a dirt road above Forty-Second Street, and the thoroughfare was lined with boulders. He drove around them so recklessly I feared that we would meet with an accident, but he simply laughed when I told him to be careful. They were very fine horses, that team, and I compliment-

ed the commodore on owning such fine stock.

"By George!" he replied, "I wouldn't swap them for the whole Long Island Railroad." At that time I don't know that the commodore was putting too high a valuation on his horses."

Money in Milk.

I asked Barton to give me some of the Harlem freight-rates. "We changed them so often," he replied, "that I can't remember a single rate. It was a long time ago, you know. Our biggest traffic, however, for a long time, was the transportation of cattle and milk.

"In the early sixties the Harlem road handled as much as three thousand dollars' worth of milk—I mean in rates—a day. We charged, I think, a cent and a half a quart, and we collected every nickel before the milk was loaded. We had agents for that purpose.

"I believe it was the milk and cattle business that attracted the commodore to the Harlem Railroad. I first met him when I was a passenger conductor on the Harlem in 1854, and I believe that the trips he used to make on my train had a great deal to do with his purchasing the line.

"He always drove to the station, and had me take the wheels from his buggy and load it in the baggage-car. Then I'd place chairs for him in the baggage end of the coach. That's the way he would ride to Chatham. He always carried his lunch and a bottle of cider with him.

"After I had made my collection the commodore would ply me with questions about the Harlem road. How many gallons of milk did we haul a day? How many engines had we? Were they good? Did the farmers patronize the road? And a hundred and one similar questions. I never realized what he was after until I learned he had bought the road.

"In my opinion, the Harlem Railroad—the New York and Harlem, it's called—is the greatest asset of the Vanderbilt fortune to-day. It is the key to the New York Central situation. While the Vanderbilts have sold thousands and thousands of shares of New York Central stock, they could, even were they to dispose of all their holdings, still dominate

the New York Central, on account of the Harlem road.

"It is the very necessary tail to the dog, and the New York Central pays well for the lease of the tail."

Going back as far as 1854 led me to ask Barton in what year he began railroading. He said that he became agent of the Harlem road at Mott Haven in 1852, and six months later resigned to take a freight run on the same road. Russell Sage, he told me, was then running a general store "up State" and frequently rode with him.

"Stealing a Freight-Train.

"I recall back in the fifties," he continued, "when five hundred people seized one of our trains and compelled the crew to bring them to New York. There was a famous prize-fight at Boston Corners one night—the place gets its name from the fact that three States, New York, Connecticut, and Massachusetts, meet there—and we carried up the noisiest and rowdiest lot of passengers I have ever seen.

"We felt very much relieved when we put them off at Boston Corners, and wired headquarters not to stop the incoming night express at that place. The 'sports' had intended catching this train back to the city.

"When the fighters and sports found themselves high and dry at the Corners, with no place to sleep, they marched on Millerton, and after drinking all our milk and roasting five or six pigs which belonged to our agent, they compelled the crew of the Millerton local to fire up.

"There were five cars, but the gang, determined to get revenge, made the crew couple on all of the freight-cars at Millerton. Poor old John Birchall was the conductor; It was nearly four o'clock in the morning when he finally got his train made up, and he brought those five hundred people to the city without collecting a cent.

Blowing Them Off.

"It was at Boston Corners, you know, that the treacherous 'blow hole' was located. It was nothing more than a break in the cliffs, but the rocks were so situated

that the wind-used to blow through the gap with terrible force. They had a saying that the winds from the three States met at the 'hole.'

"They evidently did, one day in 1855, when Tom Hyers came along with a train of six coaches. As soon as the train got opposite the 'hole' the rush of wind blew all the coaches into the river. Everything left the track except the engine. It was a miracle that everybody was not killed, but I believe only one life was lost.

"Hyers always swore that the only thing that saved the engine from toppling over was the fact that the engineer carried a huge jack-knife, one of the blades of which he had magnetized by slipping it in the rail joints.

"The most peculiar railroading in my experience was out in Ohio, on the Atlantic and Great Western Railroad, which ran from Meadville to Salamanca and thence to Cleveland and Cincinnati. It is now a part of the Erie. I was general manager of the United States Rolling Stock Company, an English concern, when General George B. McClellan, the father of New York's present mayor, was president. The general was also president of the Great Western.

"In 1871 the general called me into his office one morning, and told me that he wanted me in Meadville next morning to take charge of the Great Western. There was nothing to do but go.

A Three-Gage Road.

"I found the road a six-foot gage, and, to further add to my horror and burden, the connecting lines were either narrow gage or standard. This was the case all through the Mahoning Valley. Therefore, in order to handle traffic—we didn't use the Ramsey transfer—we had three rails, and every switch, of course, was double 'j'inted.'

"The Irish section-boss who, after being warned about his verbose accident reports, wired, after a derailment, 'Off ag'in, on ag'in, gone ag'in, Finnegin!' must have been a switchman on the Great Western at some time. There were so many derailments that the splintered and broken ties made the track look like a corduroy wagon-road.

"I have seen a six-foot-gage engine pulling twenty-five cars, half of which were of one gage and half of another. This, of course, required four couplings for every car. Then on some stretches of track where we had three gages I have seen a narrow-gage engine hauling standard six-foot-gage and narrow-gage cars. Imagine trying to switch a train made up of different gage cars.

"The most apt comparison I can think of is the old drop hook link motion engines. When you pulled the throttle of one of these engines you never knew whether she was going ahead or back. So, when one of these trains struck a switch there was such a difference of opinion between the cars that some would go one way and some another.

— Held Up by Friends.

"One day the division superintendent at Meadville got this wire from a freight conductor who had tried to run his train into a siding west of Meadville: 'Five cars off on narrow-gage track; ten off on six-foot; eight off on standard. Unable yet to determine location of engine. What shall I do?' Back went the wire: 'Sending ton of dynamite.'

"I had a funny experience one night with General McClellan. We were bound for Cincinnati, and our train was held up about two o'clock in the morning—I thought at first by train-robbers. I got a good scare.

"'Little Mac,' as the old 'vets' called the general, dropped into Meadville one afternoon and told me to get my car ready, as he wanted to go west on number three, which left Meadville at nine o'clock at night. There was no one on the car except the general, myself, and the colored porter. We talked until about midnight and then turned in. I was riding forward and the general occupied a stateroom in the rear of the car.

"Suddenly I was awakened by some one pounding on my door. I demanded to know the cause of the knocking, and the train conductor, evidently agitated, as I could judge from his voice, said:

"'We're held up, and they won't let us proceed. They're on the engine, and in front of us.'

"'By the great boot!' I yelled, gets

ting into my things. 'Shoot 'em! Shoot 'em down!'

"'It's not that at all,' explained the conductor. 'They're a lot of old soldiers in uniforms, and with banners, flags, and torches, who demand a speech from General McClellan.'

"'This is certainly a pretty mess,' I mused. As soon as I had dressed, I went forward to explain that 'Little Mac' was undressed and in bed. That didn't make a particle of difference to the veterans. They had heard, early in the night, that the general was on the regular Cincinnati express, and their presence was due to love for the war hero, and, moreover, they were there to stay. Finally I told them that it would be impossible.

"'Then you'll spend the night here,' shouted a dozen old fighters.

"I realized that they meant it, and went back to arouse the general. I must confess he wasn't pleased, at first, but after he got a glimpse of the great crowd of soldiers and citizens—there must have been four hundred—he relented. When he had dressed, I ran up to the engine and told the soldiers, who were on the track, that if they would step aside I would have the train pulled up until the private car, which was on the end of the train, came up to them.

"'Go wan, ye rebel!' yelled a man with a torch. 'Ye can't trap us as aisy as ye think. We'll go back to the caar, but a body-guarrd will stick to th' engine.'

Early Days on Long Island.

"I had to submit to the arrangement, in spite of the implied treachery. The general made a brief speech from the rear platform, and at the conclusion of his remarks I signaled the conductor to go ahead. But we were again held up. The Irishman and his companions, who had doubted my sincerity, refused to let the engineer start until he and his friends had shaken hands with General McClellan."

Barton told me that he had served on the Long Island Railroad at three different times, always as general superintend-

ent. The first time was in 1866, when Oliver Sharlock was president. Again in 1875 he took the general superintendency of the old North Shore Railroad, and in 1881, when Austin Corbin got control of the road, Barton was placed in charge of operation.

"When I first went to the Long Island Railroad under Sharlock," continued Barton, "the road ran from Hunter's Point, now Long Island City, to Greenport. I spent a week walking over every foot of the track, and every step I took I couldn't help thinking of old Commodore Vanderbilt's remark about swapping his horses for the Long Island Railroad.

The Lost Rails.

"I never in my life saw worse track. Accidents were so frequent that no one depended on the railroad, and yet the Long Island is one of the oldest steam roads in this part of the country.

"After I had finished my inspection tour I surprised Sharlock by announcing the immediate need of twenty thousand ties and ten tons of rails. On hearing my demand, he all but expired.

"'Then, what in the name of heaven has become of our rails?' he dramatically and excitedly cried. (The rails had been in use since about 1835.)

"'You can't prove it by me,' I replied. 'I've been out on the line for nearly two weeks, and I haven't found any rails.'

"'Then, what are our trains running on?' he asked in an injured manner.

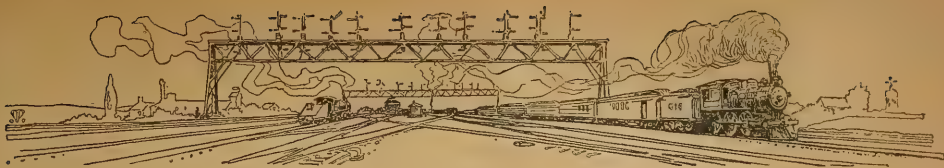
"'On the sod,' I answered.

"And it was a fact. The earth had risen over the rails and had been packed so firmly and so hard that the wheels of the cars made grooves in the sod, and they were running on this more than on the rails.

"I say rails, but I never saw them until Sharlock bought the ten tons I wanted. When I had laid the new rails, Sharlock says to me:

"'Well, Barton, I give you the credit for having built the first railroad on Long Island. What we had before was a hole in the ground.'"

The next Old-Timer Tale will tell of the Jarratt-Palmer special, which was a sensation in 1876, when it made a record-run from New York to San Francisco.



Recent Railroad Patents.

BY FORREST G. SMITH.

**The Vast Network of Railroad Efficiency and Railroad Equipment Has
Been Built up by Eighty Years of Such
Efforts as These.**

We have decided to slightly change the form of our monthly article on Railroad Patents, and to add another feature. For a long time we have been receiving queries from readers seeking advice about patent procedure, and heretofore Mr. Smith has answered these queries by mail. In future we shall run these queries and the answers to them as an appendix to the monthly article. Every reader who has a problem of this nature is welcome to the services of the department, and a letter addressed to Mr. Forrest G. Smith, or to the editor, will receive attention as early as possible.

TORPEDOES.—Ordinarily railroad torpedoes are highly efficient as signals, but in rainy or snowy weather the explosive mixture which they contain becomes damp, even after a few moments' exposure, so that the proper signal will not be given. An extremely simple but very effectual remedy for this evil is shown in a patent, No. 938,465, November 2, 1909, issued to Frank Dutcher, of Versailles, Pennsylvania. Mr. Dutcher provides a torpedo in which the explosive-containing portion is sealed with a water-proof substance.

CONVENIENT BRAKE.—It is now customary for trainmen in setting the brakes on a car or a train of cars, while they are at a standstill, to climb onto the car platform in order to set the brakes, but a device patented by Henry C. Ostermann, of Chicago, Illinois (No. 939,076, November 2, 1909), obviates this necessity when the car or cars are at a standstill. The device is embodied in an ordinary brake-mast, such as now has mounted at its upper end the usual hand-wheel, but in this device the wheel-mast is swiveled so that it may be swung down to extend behind the car and be turned by means of the wheel, while

the brakeman is standing on the ground. In other words, the brake may be applied on any car, whether the brakeman is standing on the ground or is on the car.

SPRING JOURNAL LID.—Spring controlled journal-box lids have often been suggested, but nearly all of them possess the disadvantage of being liable to seat improperly, leaving a space for dust to enter. To prevent this, Thomas H. Symington, of Baltimore, Maryland, has patented, No. 938,523, November 2, 1909, a journal-box lid, which is held in place by means of a heavy spring, which, while it is arranged in the usual manner, cooperates with a cam member on the hinge of the box and lid, so as to guide the lid to its seat and insure a close fit between the parts.

AUTOMATIC STOP.—An entirely automatic system for controlling trains is disclosed in Patent No. 941,233, November 23, 1909, issued to William G. Daring, of Pittsburgh, Pennsylvania. His system is designed to prevent the entrance of a train into a block occupied by another train.

It is embodied in automatic means carried

by the engine or tender, which is actuated through the closing of a circuit through the medium of contacts arranged beside the tracks. The system is so arranged that the air-brakes will be applied on any train entering a block occupied by another train. After stopping the train on which the mechanism is arranged, the actuating device for the brakes is automatically reset.

LUMBER-LOADER.—Ordinarily, lumber is loaded into cars by the aid of a man in the car. A device, shown in Patent No. 939,452, November 9, 1909, however, issued to Edgar L. Stocking, of Buffalo, New York, makes it possible for lumber to be loaded without this help.

The device consists merely of a bar structure, which is so constructed as to be arranged within the doorway of any car, and which supports a roller which is of such breadth that lumber may be readily shoved over it and into the car. The support for the roller is moreover swiveled so that the lumber may be guided into the car toward either end and disposed according to the wishes of the operator of the device.

NEW RAIL PROCESS.—As the ordinary form of rail is rolled, the strata of the steel in the tread of the rail is positioned in layers parallel to the strata in the web of the rail. In other words, the grain of the rail, if it were of wood, would run the same in the head of the tread as in the web of the rail.

As a result, rails soon become worn in their tread surfaces, and have to be replaced by new ones. To overcome this disadvantage, Norman Randleman, of Knoxville, Pennsylvania, has devised a method of manufacture, which is simple in the extreme, but which will result in the rail manufactured by the process having the grain of its head run at right angles to the grain of its web.

As a result, the life of the rail is prolonged and it will not peel as does the ordinary rail after a short period of use.

RAIL-BENDER.—A novel form of rail-bending tool is disclosed in Patent No. 940,325, November 16, 1909, issued to James R. James, of Ridley Park, Pennsylvania. Usually such devices are not adjustable to every size of rail, and are consequently limited in their usefulness.

The device disclosed by Mr. James, however, includes a bracket member, which is adapted to be applied to a rail, and has mounted upon it an arm, which is adjustable

so as to bring the rail engaging and bending members into proper engagement with the rail. As a result, a rail may be bent by means of this device at any desired angle, regardless of its size.

CONTROLLED HEADLIGHT.

—Numerous devices have been proposed for the purpose of keeping the headlights of locomotives in alignment with the tracks, but such devices have usually included mechanism connected with the trucks of the car to which they are applied.

A device patented, No. 940,446, November 16, 1909, by Silas W. Pomery, of Big Run, Pennsylvania, discloses an extremely simple idea, which is adapted to this use, and which includes no mechanism of this character. The device is embodied merely in a reflector, for the usual headlight, which is pivotally mounted and is controlled solely by means of weights so arranged as to direct the rays of light from the reflector to the tracks, regardless of curves and inclines.

STREET-CAR DOORS.—As Pay-as-you-enter cars are at present constructed, the conductors are exposed to the cold, or, where the doors are so arranged as to be normally closed to enclose the rear platform, they must be manually opened by the conductor at each stop.

Mr. Harold Rowntree, of Chicago, Illinois, has conceived the idea of providing means operable from the movement of a crank-handle at the inner end of the bar behind which the conductor stands, for automatically swinging the entrance door inwardly and the exit door outwardly. The patent disclosing this device, No. 937,870, October 26, 1909, has been assigned to one of the principal manufacturers of this class of cars.

GRAIN-DOOR ESCAPE.—It is desirable that grain-car doors be so constructed that they may be partly opened so as to allow the escape of a greater or less quantity of grain before the entire door is opened or removed. Ordinarily, a small door is arranged in the main door for this purpose, but such doors permit the discharge of grain in too great a volume and over too large an area to be satisfactory.

Richard R. Reaveley, of Fort William, Canada, has secured a patent, No. 938,789, November 2, 1909, on a car door of this type, consisting of three sections, two of which, when arranged in closed position in the door opening, leave a V-shaped opening, which is closed by the third section. This

latter section may be opened to a greater or less degree, as may be desired, so as to allow the discharge of a small stream of grain through the V-shaped opening at the narrow end thereof.

A STRONGER FROG.—A railway track frog naturally receives considerable thrust, which is usually transmitted to the rails leading from the frog rails, causing abnormal creeping of the rails. This creeping is overcome by a means disclosed in Patent No. 940,440, November 16, 1909, issued to William H. Dotter and Raphael S. Hays, of Carlisle, Pennsylvania, and assigned to a large switch-manufacturing concern of Pennsylvania.

The frog shown in this patent is formed with pairs of spaced reinforcing ribs between which seat the usual braces provided for securing the frog to the ties. Not only do the ribs reenforce the frog rails, but they also cooperate with the braces to hold the frog against creeping.

BETTER RAILS.—A novel process in treating railway rails so as to prevent peeling and render them practically proof against shocks and wear, except after lengthy use, is disclosed in a patent, No. 941,134, November 23, 1909, issued to Fred. H. Daniels, of Worcester, Massachusetts. In this method, the blanks are first heated to a high degree and then suddenly cooled so as to impart a very fine crystalline structure to them.

They are then heated again and cooled gradually, so as to eliminate internal strain, after which they are cold rolled so as to lengthen and flatten the crystals throughout the entire exterior surface. By this method, a kind of fiber is formed at and near the exterior surface of the rail, rendering it tenacious, so to speak, and calculated to materially prolong the life of the rail.

HOSE-COUPLING.—Numerous automatic air and steam couplings have been devised for railway cars, but nearly all of them have lacked the one thing which will render their adoption really practicable. That is, they nearly all are rigidly mounted so that a slight difference in elevation between the cars to be coupled will be liable to result

in leaks or imperfect engagement of the couplings.

To obviate this disadvantage, Joseph V. Robinson, of Salem, Oregon, has patented (No. 937,961, October 26, 1909) a coupling of this class, which will be effectual whether the cars to be coupled are in or out of direct alinement as regards their couplings.

The coupling employed may be of the ordinary form, which includes centering wings, to bring the terminals of the pipes to be coupled in mutual engagement, but, whereas such devices have before been rigidly supported, the heads of this coupling are held in position solely by stout springs, which serve to support the same from the main air and steam-supply pipes.

These springs will, of course, yield when the heads upon two cars contact so as to insure of proper mutual engagement.

ANSWERS TO PATENT PROBLEMS.

H. D. L., Tacoma, Washington.—Has any patented nut lock been adopted for actual use?

Only in an experimental way on short lines of track. Even the simpler forms, patents on which have long expired, have not met with favor.

R. M. S., Pittsburgh, Pennsylvania.—Is the idea of wireless communication between moving trains patentable?

The idea itself is old and would not be, even if new, but the novel features of such a system would be considered the proper subject-matter for a patent.

R. T. B., Cincinnati, Ohio.—Are spark-arresters now in general use on locomotives?

2. Can patents still be secured on such devices?

1. But few are in general use, and such as are, are chiefly those on which the patents have expired, and which are, as a rule, much similar in construction than those which have been recently proposed and patented.

2. There is no art which has been exhausted, and patent may be secured on any device embodying novel structural details which are considered to amount to invention, and especially where new or more satisfactory results are secured.

For flat wheels it's either the lathe or the scrap-heap. Get in the lathe.—Master Mechanic.



SONG OF THE NIGHT MAIL.

BY H. S. DUDLEY.

Written for "The Railroad Man's Magazine."



TWO shining threads-of silver
In the night. The quiet trail
Of the fire-devouring monster—
The path of the Midnight Mail.

Far to the east they glimmer
Through a sleeping countryside,
Under a moonless, starlit sky,
Where the whirling winds have died.

From my place in the swelling foot-hills,
Far out toward the rim of night,
I know that the Mail is straining
In leash, with a wondrous might.

Out of the bustling depot
It glides at length, with a sigh,
And feels the cool, caressing breeze,
As the city's lights drop by.

Into the open country,
With ever-increasing speed,
Shines far ahead on the cold gray rails
The light of the Titan steed.

Now, like a hundred thunders,
With the throttle open wide,
It leaps into the shrieking wind,
Which licks at the iron hide.



From my seat, in the swelling foot-hills
 I can hear a muffled throb,
 Like the march of a distant army,
 Or a restless, seething mob.

I know that the Mail is coming
 Ere I see the light at the head;
 For the muffled throb is the mighty wheels
 As they spurn each silver thread.

Then from the edge of darkness
 Comes a steady speck of light;
 The throb becomes a muffled roar
 Far out in the eastern night.

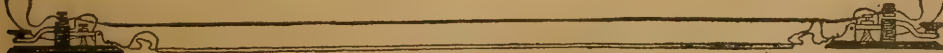
Now I see the distant flashes
 From beneath the swaying hood,
 As a sweating, heaving pygmy
 Crams the monster's maw with food

Nearer, and ever nearer,
 With the speed of a hurtling shell;
 Louder, and ever louder
 Comes the clang of its brazen bell.

The earth seems all aquiver
 With the shock of the awful speed,
 Over a mile a minute—
 For the Mail must meet man's need.

And then with a roar like thunder
 The Midnight Mail goes by.
 The strips of steel scarce touch the wheel,
 The shrieking air like a soul laid bare—
 It fairly seems to fly!
 The bursting bell like a wild death-knell,
 The furnace door like a glimpse of hell—
 And the Midnight Mail is by.

On into the gloomy canyon
 The rumbling fades and dies,
 And the quiet seems more quiet,
 More peaceful seem the skies.



Being a Boomer Brakeman.

BY HORACE HERR.

THE improvident boomer of the In and Out System having managed to get together, at one time, as much as one dollar in United States coin, flew the coop and hotfooted it to Mexico, where he had some escapades which were so hot that a Chile con carne factory would be an ice-house in comparison.

It seems as if every railroad man wants to have a fling at Mexico, and if the experiences of any who have emigrated there are at all like those of Mr. Herr's hero, we don't wonder that it's better to keep this side of the gringo-belt.

Our boomer has hustled back to his native heath—he has gone home to help father milk the cows and wean the pigs. Thus ends a brief but varied railroad career. We are not sorry having read about it—are you?

5.—GETS HIS CLEARANCE FOR KEEPS.

Showing the Marvelous Independence of the Stinger Who Thinks that One Hundred Cents Will Buy the Sun, Moon, Stars, the Stellar Spaces—and a Few Drinks.

DID you ever notice how independent a fellow gets when he has a dollar in his pocket? He will rise up in his dignity and tell a railroad to go to the underworld; then he'll fly the job, apparently in the belief that that one dollar will buy the sun, moon, and stars. When the last penny is gone and he hasn't anything in his pocket that will make a rattle, he's mighty glad of the chance to fight the cinders on the head end and lug chains in order to get back on the pay-roll.

I flew the job on the In and Out, and decided that I would quit railroading for some other occupation a little less strenuous. I might have kept the resolve, if I hadn't drifted into El Paso, Texas.

El Paso is a wonderful town. There

are forty men for every job, and a card isn't good for a look-in at a square meal. I went down there thinking I would catch on as manager of the Southwestern, or some other easy money, but there was a nothing-doing sign hanging over the entire place.

I went onto the G. H. and S. A. extra board, but you couldn't get a trip down there for love nor money. Those fellows get a job and never leave it until they are ready for the Soldiers' Home.

Then I went to shuffling cars in the yard. The first string they cut off on me when I was in the field ran down and hit the rear end of a switch-engine, put the tank over the smokestack, and it was me for the time-check and out of the job again, a private in the great army of the unemployed.

One week more and I was looking for

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a hand-out, looking hard with a magnifying-glass, and there was still nothing doing. Every one appeared to be on the side or running light, and I had to flag the meal-stops until I got so thin that I looked like the imported living skeleton in a side-show.

Then I began to cast longing glances across the Rio Grande to the land of the "*quien sabe?*"

Land of Lead Dollars.

Mexico for me, where the lead dollars come easy and go twice as fast; where the last summer's clothes are plenty good enough and a sandal-foot peon is the only one you have to look out for. Without the price of the toll-bridge, I got over to Juarez, out-talked a conductor on a south-bound drag, and climbed aboard, bound some place, I didn't know where, but content to feel that I was on my way.

I woke up in Chihuahua, a beautiful village, with a population of two hundred thousand—counting the dogs—but there was nothing doing there, not even a free lunch. It was back to the dog-house for me, and the next stop was Torreon. At Torreon things looked better.

I heard that there was a chance down at Jimulco, and that night I rode the sky-side of a water-car into Jimulco. The next day I walked into the trainmaster's office and asked for a job running a train.

No more stinger stunts for me. What's the use of being modest? I knew that I could handle the bills and sign the orders, and I couldn't see the use of working for eight Mex. when I could pull down two hundred and work less.

Nothing doing as a conductor, so I took

the next best thing, and woke up to find that I was again the proud possessor of one of those brass keys and a badge. When I climbed onto Vernon's caboose I'll admit that I heaved a sigh of relief, even though my braking pardner was a greaser, for I saw square meals looming up again, and I was more than anxious to see if the corners would really hurt me.

Now, I'll say a few things about rail-roading in Mexico. You can pick up most any old newspaper and see startling accounts of how the entire crew of some train has been taken to jail for some trivial offense. The blood-and-thunder stories which come out of the South would fill several volumes.

Fine Jail Service.

Take it from me straight that there are worse places than Mexico. Mexican law is all right; in fact, the Mexican law has some few points of superiority over



MY MEXICAN PARDNER SAID
THAT IT WAS A GOOD JOB.

the same brand in the United States, but the way they have of administering their legal medicine is something fierce.

In the outlying and isolated districts, petty judges are so ignorant that they couldn't read a law-book, even though it was printed in words of one syllable and illustrated with signs. They never saw a law-book, and never want to. Their personal feeling is the only law they recognize, and a gringo [American] is legitimate prey.

In the United States about the first thing a conductor buys is a good watch—in Mexico his first purchase is generally a forty-four revolver. All you want the gun for is a bluff, for nine-tenths of the gringos wouldn't use the gun if they had a chance.

You see, it's something like this: The road says that it will hold you responsible for the merchandise-cars. They put them right next the caboose, where you can watch them; and if some thieving son of Mexico gets busy and steals some of the imported silk, you have to answer for it to the company.

Suppose you catch the fellow in the act and take a shot at him and get him; then you are up against the Mexican law as it is, and a gringo never gets any of the best of it in court.

Chile Coal and Poor Water.

Braking in Mexico isn't just like a Sunday-school picnic by a great deal. About fifty per cent of the trunk-line traffic is in ores. They have the big engines down there now, just as they have in the United States; and Chile coal and poor water make the hog-head's life a burden.

In the first place, the fireman can't put the coal-dust into the fire-box fast enough to keep her hot; and when he does get a fire just about the place he wants it, he has to open the fire-door and put in the rake. By the time he has the fire-bed raked, the cold air has reached the flues, and they are leaking a steady stream.

Water goes to working through the stack, and if it's not one thing, it's another. If ever a train—a freight-train, at least—made running-time in Mexico, it is not recorded on the books of national history.

If it happens that an engine is in condition to permit of its making the running-time, the conductor won't let the engineer speed it, for fear he will heat the boxes. A real brass is almost a stranger down there.

A "Good" Job.

Every ore-car is equipped with shell brasses, and as soon as the babbitt has melted you know what happens. If you find it before the journal drops, you're mighty lucky. It's easy during the night-time, for every time you hit a curve you can look along the string; and if you see one blazing, you can pull the air and go over and cool it off.

During the day you have to depend on your sense of smell, or stop every twenty kilometers and go feel them over. My first trip out of Jimulco was south to La Colorado, and it took just thirty-two hours to make the two hundred and ten kilometers.

On that trip I put on one new air-hose, one Gould knuckle, chained up twice, packed fourteen hot boxes, and put in three new brasses. When I got in on that run, the pay looked mighty poor—eighty Mexican "dobies" a month for such work as that; but my Mexican pardner said that it was a good job. Perhaps it was for him, but I never did think much of his tastes.

Then the men began to tell me a few of those choice little stories of the men who had gone the route. There are two dreaded routes in Mexico. One is the wreck route, the other is *via* the little adobe with the barred door, sometimes called the jail, the "hoosgau," or anything else you want to call it.

Into the Canyon.

There was Skinny Farris, who had his little experience with the Mexican law, and Tim Lee, of Denver, who was then over at Zacatecas doing time for the Zacatecas wreck, in which sixty Mexicans were killed. He was a steady patron at the national boarding-house for over thirteen months without a trial, and then they turned him out because it was so expensive to keep him.

After I had finished my time braking

and had been set up to running a train, I was one of the boys who carried Tim over the pike to the border at El Paso. When he came out of that town he was a wreck, physically and mentally, and here is the straight of how he went there:

Lee was an engineer running between Zacatecas and La Colorado. One evening he coupled onto a passenger-train coming out of Zacatecas; and when the conductor brought the orders over for his

When he hit the first bend on that mountain, and gave them about five pounds to settle them on the rails before taking the curve, he found that his train line, which commands the brakes, was cut off. He called for hand-brakes, but what could a few hand-brakes do after a train had such a start?

He took the next curve all right, but the third one — well, they shot out into a cañon like a greased rocket.



I CLIMBED INTO THE BAGGAGE-CAR, AND HID UNDER A BIG PILE OF BURLAP FOR EIGHTEEN HOURS.

signature he brought a message from the despatcher, asking if he could make up fifteen minutes on the running-time from Zacatecas to Calero.

Tim's reply was: "If they stay on the rails, I can make it."

From Zacatecas to Calero is down the side of the famous Zacatecas Mountain, and five coaches need a lot of air to hold them when they are dropping down a heavy mountain grade. Mexican car repairers and inspectors are supposed to look over every train which pulls out of Zacatecas, and when they gave Lee the high sign he supposed that his train was all right.

Engine, tender, baggage-car, and two coaches went along. Sixty Mexicans didn't get home to their beans that night, and Lee was picked up from the bottom of the pile of scrap-iron, leg and arm broken and badly scalded, and hurried off to jail. He never came to trial, and he was no more to blame for the accident than was I or any one else who was a thousand miles away.

What One Woman Did.

Here's another one like it. Plummer was a conductor on the Chihuahua division, running between Jimulco and La

Colorado. He had one American brakeman on his crew, who was a mighty good man. One evening they came to Jimulco, and when they stepped off the caboose a flossy little greaser policeman, wearing the authority of the law and a saber, led them over to an 8x10 jail, the dirtiest little hole you were ever in.

There they stayed for seventy-two hours, with nothing to eat except the grub which the rest of us were able to slip through the bars, while his royal nibs, the "hombrey" with the saber, was down at the corner *cantina* accumulating a train-load of *tequila*. Finally they brought them into court to try them.

Some woman had complained that the two of them had put her off a freight-train when she was endeavoring to bum her way to town to buy some supplies. They had never seen the woman before, and the evidence showed conclusively that they were not guilty, and that the woman had jumped off a moving train and broken a leg.

"Not guilty," was the verdict, and then the judge fined them sixty-four dollars. That's going some now, isn't it? Can you beat it? If they had been guilty of that heinous crime, they would have been digging in the salt-mines still.

After that, I decided that if I ever caught up with trouble before trouble caught up with me I would make the big hike for the line, without the formality of kissing my Mexican friends good-by, and never take a chance with Mexican justice outside the City of Mexico.

I am awful glad I decided that way, for it was just a month after that when I got into it. Never mind what it was. I didn't take my bills down to the office when I took in that trip. I had the brakeman register in for me.

He was a Mexican, and the Mexican

law isn't made for the native—it's made for the gringo. He took the bills, and I took the second section of a passenger-train which happened to be pulling out for the States.

I climbed into the baggage-car and hid underneath a big pile of burlap for eighteen hours until my friends, the baggage-master and the conductor, came over and dug me out, and pointed through the open door to where I could see Old Glory waving from the flagpole of Fort Bliss, near El Paso.

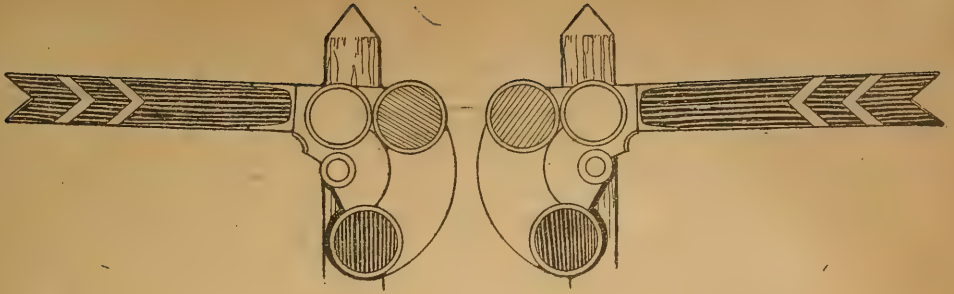
Half an hour later I was over the line, making naughty faces at Mexico, and vowing that I would never visit that beautiful country again. One trip was enough—especially under the circumstances—and I hardly believe that, even in time, I would ever get used to eating beans and tortillas three times a day.

So far, I have kept that vow. I waited around El Paso until the pay-car came over the line, some twenty days later, drew my Mexican pesos, had them changed into real money, and then, while I had the coin, I bought a ticket back to the dear old East, and went prospecting for a job—not a railroad job, but a place where you are home every night, and as long as you work and duck the street-cars, you are reasonably sure of meeting yourself at the supper-table every evening.

While I have the greatest respect for the men who follow the railroad game, a game full of more danger and real romance than any other calling in the world, still I would rather be on the outside looking in than on the inside where you can't see at all. And I guess a fellow will reach that stage soon enough where all the friends pass by and say "How natural he looks!" without tempting fate by hanging around a Baldwin hog or a dog-house.

(The End.)





The Death of "Dread 107."

BY RALPH C. MULLIGAN.

THIS is the story of the most unfortunate locomotive that ever turned a wheel—"Dread 107"—cursed by every man who ever had anything to do with her. We have never heard of a locomotive history to equal hers. If so—if any of our readers can tell a more remarkable story of wreck and ruin—we want to see it, and we cordially invite them to submit it for our consideration.

It seems strange, almost uncanny, that one disaster after another, accompanied by loss of life, should have followed with such regularity.

Is it a wonder that engineers absolutely refused to take her out?

After Twenty Years of Appalling Disaster, the Old Man-Killer of the Rockies, Whose Name Was a Byword, Adorns a Scrap-Heap.

"DREAD 107," the fiend-driven locomotive which has launched into eternity a dozen of her train crews and has been in twice that many fatal wrecks; the locomotive which superstitious firemen and engineers swear was haunted by the phantom spirits of her victims who could be seen at night, awful in aspect, sitting in the engine cab or gliding up over the pilot, is in the scrap-heap; dead, after twenty years of terrible service.

Hearts of railroad men on the Denver and Rio Grande beat slower, for all along the line she was known as a man-killer. Death sat at her throttle.

After her last fatal wreck, eight years ago, she was virtually abandoned with

a death roll of seven engineers, six firemen, and almost two score of passengers.

She earned her name during the first two years she was in service, when one disaster after another occurred in rapid succession, always fatal to the engine crew, and frequently to the passengers. Railroad men soon believed the 107 was hoodooed, and it became increasingly difficult to persuade an engineer to run her. She was transferred from one division to another, leaving destruction in her wake and bearing such an ominous history that among the more superstitious it was like getting a death-warrant to be called to take her out.

"Dread 107" was one of three anthracite burners, the first of such type to be used in the Rocky Mountain coun-

try, sent out in 1888, and put on the passenger run between Gunnison and Grand Junction in western Colorado.

It was a narrow-gage line, which had been built in 1883, and followed a treacherous, tortuous path through mountain gorges and across deep cañons—the only route through the Rockies at this point until the tunneling of Marshall's Pass, a year later.

On the night in early spring when 107 left Grand Junction on her first trip over the division, Bill Duncan, who was the first man to pull a train over the Continental Divide, was at the throttle, and Josh Zoogley was firing.

They were well on their way toward Gunnison, the new locomotive running without a hitch. Duncan opened her up on a straight stretch down Black Eagle Cañon.

He did not know that part of the bridge had been carried away. Without warning, the train plunged into the river, bearing the engineer and fireman to their death. To this day the exact number of passengers who lost their lives is not known.

"Dread 107" lay at the bottom of the cañon until late in the summer, when the river receded and she could be raised. She was taken to the yards at Salida and put in condition. She went back to her run again in November, and for two months nothing happened.

Bill Godfrey's End.

Bill Godfrey was the next engineer to whom she was assigned. With a fireman named Bell, who was making his first run on the division, Godfrey left Gunnison on Christmas Eve, both train crew and passengers eagerly anticipating their arrival at Grand Junction to spend the holiday.

It was bright moonlight, but just around Blindman's Curve, between Escalante and Domingues, a ten-ton boulder, which had loosened and fallen, obstructed the path of the train. It was going at a high rate of speed and the impact of the collision was terrible. Godfrey and Bell were instantly killed, and several passengers were added to the list of fatalities.

It took nearly two months to repair

the engine, and she was not put in service again until early in March, 1889. Already old engineers were fighting shy of her, and Frank Bratt, a new man on the road, offered to take the run.

He made only two round trips. On another bright moonlight night, the 11th of March, "Dread 107" and Bratt left Gunnison, passed Blindman's Curve where Godfrey and Bell had but recently been killed, and started down the Black Eagle Cañon, which had been the scene of the first disaster.

Between Thapaniro and Currecanti, one of the worst snowslides for many a season was encountered. When 107 struck it she turned turtle, and both engineer and fireman were crushed to death. In this case the passengers escaped unscathed.

Few Would Take Her Out.

After this accident the locomotive had such a name that few men could be persuaded to take her out. For over a year she lay in the yard at Grand Junction, and then an attempt was made to put her back on her old run, but so firmly implanted in the hearts of all the engineers was the belief that 107 was hoodooed that all sorts of excuses were made for refusing to run her.

It was at this time that she was nicknamed "Dread 107," which has clung to her even until to-day, when she lies a mass of battered and rusty iron.

Uncanny stories were circulated about her, tales of spirits that were seen at night clambering in and out of the cab as she lay in the roundhouse; premonitions, which all six of the crews who were on her death roll were said to have told them of their fate.

In despair at the reports from division headquarters, the locomotive was ordered transferred to Salt Lake City, to run between that city and Ogden, a distance of about eighty miles over prairie country.

At first there were only minor accidents, two rear-end freight collisions in which no one was hurt, and a derailment that killed an unknown hobo who was riding back of the tender.

"Mad Ole" Gleason was her engineer, and in the remembrance of the old-

est railroader in the West, a more daredevil hand never held the throttle. For fifteen years "Mad Ole" had been in an engine cab and in a half-score wrecks, but never once had he been more than scratched.

His friends said he had a charmed life, and the old engineer believed it himself. Within six months from the day when he set foot inside "Dread 107" he was picked up a corpse.

Into a Stock-Train.

It was a head-on collision with a train of live stock. The engine crew of the freight jumped before 107, with "Mad Ole" in the cab, piled on top of them. In all, five persons were killed in this wreck. The cause was never satisfactorily explained. People merely said, "she collided with 107."

Although now only three years old, 107 was so battered up when she came out of this collision that after she had been repaired she was relegated to freight service.

For over two years her history was uneventful, and many thought that the hoodoo had been broken. During that time her name lost some of its former terror, and then one night, lest her old record be entirely forgotten, some unknown hand carved in the woodwork of the cab the names of the eight men who had met their death there and the list and dates of the various wrecks in which she had figured.

From that time, although there were still no new accidents, misfortune seemed to follow all those connected with her. Sickness and death among the train crew and their families, ill luck of various kinds, which was all traced by the superstitious victims to the old locomotive.

When Flynn Went Crazy.

"Dread 107" celebrated her sixth anniversary in a startling way, which, as told by old railroad men, is half fact and half legend.

It was a Sunday morning, and she was standing in the Ogden yards with steam up ready for her eighty-mile haul. Engineer Tom Flynn was in the cab, and his brother was fireman. Suddenly Flynn

opened the throttle, and the locomotive sprang forward and was a hundred yards down the track before the yardmaster or anybody realized what had happened.

She did not stop until she rolled over an embankment on a curve twelve miles away. Two trains which were in her path were flagged, and got on sidings without a second to spare.

Fireman Flynn was picked up unconscious beside the track several miles from where 107 engine had been ditched. He died next day as a result of internal injuries, but not until, half delirious, he had told of a mad tussle with his brother and how he was finally thrown backward from the cab.

The engineer was found pinned beneath his overturned engine, a raving lunatic. As this story is told in smoky cabooses on stormy nights, it is declared that Flynn went mad while staring at the death roll of the victims of 107.

If it had been difficult before, it was impossible now to get an engineer to run her. She was once more transferred—this time to Alamosa in southwestern Colorado on the other side of the mountains. She was sent deadhead from Ogden across the divide to her new home, so unwilling were those who knew her history to ride in her cab.

Her Number Changed.

Before starting on her new run, she underwent a thorough overhauling and painting, the offensive death roll in the cab was removed and, most important of all, her number was changed to 100 in the hope of forever burying "Dread 107" and all the superstition which surrounded her.

During the next few years, little is known of her history although, gradually, her former identity became known and she was regarded with curious interest. Then came tales that 'fantom' had been seen on moonlight nights riding on the pilot as she puffed slowly up the mountain grades, and these 'fantom' always had one hand upraised toward the number, as if trying to change the "0" to a "7."

One spring, during the freshets, the old locomotive once more rolled into a ditch, scalding to death an engineer named

Peters and maiming her fireman. But, strangest of all, when she was brought into Alamosa again there was her rightful number, "107," back in its old place.

Who changed it? It was the spooks, some of the superstitious claimed. But after that she kept her number and her old name, "Dread 107."

For the next five years she remained in the Alamosa roundhouse, used only on occasional emergencies, gradually growing more antiquated, and dilapidated, feared and hated by all, from the oldest eagle-eye to the youngest call-boy.

Before making her last journey to join her less famous sisters in the burial-ground of scrap-iron at the Burnham station, 107 was destined to be in another wreck, more horrible in its consequences than any in her evil history.

It was a long winter on the Alamosa division—a hard winter, with wrecks, snowslides, and washouts that nearly paralyzed traffic. During that winter, not one fire was built beneath its boilers.

Then, one June morning, she steamed out in the yard, in charge of Frank Murphy, an engineer who, alone of all who

knew her record, scoffed at bad luck. Jenkins, his fireman, had just finished eight weeks in the hospital. The 107 was to take a string of empty gravel-cars to Mear's Junction to load, and every operator along the line shuddered with dread as he sent the number.

That night Frank Murphy started on the return trip to Alamosa with a heavy train of gravel. It was all down grade, and only two trains to meet. Six miles out of Mear's Junction, on the worst piece of track on the whole division, Murphy suddenly realized that his train was running away.

He shut off steam, applied the worn-out air, and whistled for hand-brakes.

No one lived to tell what happened. At the foot of the mountain the runaway crashed into a light mixed train, the wreck caught fire, and Murphy, Jenkins, and the conductor, the engineer and a brakeman of the mixed train were killed.

"Dread 107" never made another run. The man-killer locomotive, which had more deaths and more wrecks to her credit than any other in the intermountain country, was abandoned forever.

WHY CASEY DOESN'T WORK.

BY RAY H. HOLSINGER.

Written for "The Railroad Man's Magazine."

MY name is Jerry Flannigan, Oi work on siction three,

Pat McCarty is the foreman, and a dacint man is he.

Oi've just wan fault to foind with him, Oi'm tellin' you of it,

In regard to Casey, his first man, who doesn't work a bit.

Of all th' lazy min Oi've saw, he is th' limit yet,

Us other bys have nicknamed him, "Ould Pat McCarty's pet."

Whin we are puttin' in th' ties, or linin' up th' thrack,

Instid of sweatin' loike th' rest, he sits upon th' jack.

If it happens we are cuttin' weeds, his dear back doesn't bend,

It's "Casey, take the speeder and run over th' east end."

Oh, it's Casey this, and Casey that, and Casey, ile th' car,

And Casey mustn't sile his hands on some ould tamin' bar.

An' if they have a washout, down on th' Wymore branch,

We all must go but Casey, he can stay and run th' ranch.

An' whin th' pay-car comes along, ould Casey steps up spry,

An' draws the same as all th' rest, an' nivir bats an eye.

Th' roadmaster has got a snap, th' siction foreman, too,

But Casey's job skins theirs because, he's not a thing to do.

Oi'd like to own a railroad, but if sich a thing can't be,

That first man on th' siction job is good enough for me.

If things don't change around this gang, Oi'll quit nixt pay-day sure,

To have ould Casey for straw-boss, is more than Oi'll endure.



THE MAN WHO HIRED.

BY EDWARD HOLDEN.

A Smooth Game Is Checked by a Dupe Who Happened to Be Waiting for a Local.

IT was 10 P.M. when the Toledo train left Pittsburgh. Disposing my baggage, I removed my coat and opened the window. Then, with my pipe for solace, I lay back in the serene consciousness of having arranged for the comfort of the all-night passenger in a day-coach. Mine was the third facing seat on the right of the car, the first being occupied by two men who seemed to have already traveled some distance on the train. Opposite them were two railroad men, deadheading.

A few other yawning travelers were scattered through the car behind me.

When we had made some fifteen miles, I finished my smoke, and started to doze. But my time was not yet.

"Smoke these on me," I heard one of the men on first seat right say, as he tossed two cigars to the railroad men opposite. He leaned over, and I saw his face—lean even to sharpness, with thin but overly loose lips.

"Boys," he went on to the two across, "two days ago I was flat on my back—hadn't even a feather for the aborigine's head on a red cent. Now I've come into something that'll make the success of Rockefeller and Carnegie look like that negative virtue which is often referred to as being the color of verdigris. They all thought I was good for nothing—the folks in Toledo, I mean—but I'll show 'em by agreeably making the fortunes of

some forty or fifty relatives, giving 'em all jobs working for me.

"It sounds fishy, doesn't it? But it's true. I say, Gus," turning to his companion, "I can't hardly believe in such good luck—that I'm really president of this new company we're organizing. Hoo! Hoo! Hoo! Hee! Hee!"

Presently he and Gus got out pencil and paper and commenced figuring. In the lull I dozed off.

Next thing I knew I was awakened by the words, "I'll give you two hundred a month and expenses," and found the man of the financial bonanza in earnest converse with a man who occupied the seat in front of mine.

"Rent an office and storeroom in Mansfield, your home town," he continued in tones husky with enthusiasm, "and store white lead and oils by the ton."

He came back and sat with the stranger in his desire to explain more fully.

"Now, I'll furnish you with an automobile—steam or electric—and you can equip your office to suit yourself as our manager. Don't stint. Get good furniture—put a Brussels rug on the floor, if you want it. Advertise freely. And above all, get good men—and hold 'em."

This he added with insistent emphasis, and went on:

"If some other company pays its painters and decorators five dollars a day, pay yours five and a quarter, or

five and a half—but hold 'em, if you have to pay six."

I began to throw my sound-receivers wide open about this time—for a capitalist who is hiring men at high salaries for a new concern has a most absorbing attraction for a clerk who, like myself, has not yet reached the century mark in his monthly stipend.

I began to cast about for a pretext to talk to this man. Maybe this stuff about "Opportunity once gone is lost forever," was no stuff, after all. Here seemed to be a chance for me to better myself. If I sat still and did nothing, I might never see another—surely never a better. Just then the man who hired rose to return to his own seat, and the stranger moved to a seat across the car.

"Don't forget, F. H. Andrews, 425 Victoria Building, Toledo, Ohio," said the former, in parting, "and wire or come to see me personally when you get things in shape." And he and Gus returned to their pencils and paper.

I must have dozed again, for when I was next conscious we had stopped at Alliance, and a man came through with hot coffee and sandwiches. The man who hired bought some and set about demolishing them.

It struck me as queer that one who had fallen into sudden opulence should ride all night in a smoker and lunch on coffee and sandwiches; but I concluded that either he must be a man of hard democratic sense or had not as yet come into possession of much ready money. I observed that the railroad men had moved my traps to the left front seat, where was a most promising field for stretching my six feet one for slumberous purposes.

I hadn't settled long before the man who hired looked at me and whispered to Gus. Then he came across, and I was glad I had not made first advances, for now I was in a position of greater advantage.

"Can I talk to you a little while?" he began, and, at my acquiescence, dropped beside me.

"My name's Andrews," he commenced—"F. H. Andrews, president of the Andrews Decorating Company, of Toledo."

I felt a chill at the nearness of so great a person, but the American in me rose

up—Diogenes, I believe, was the first American—and I disclosed my name with some sonority.

"We're just organizing," said Andrews—"going to have branches in all the large cities of the country. Want men—good men—every class. What is your business, and what does it pay?" he ended in crisp tones that admitted of no application of the word inquisitive.

"Bookkeeper. Thousand a year," I replied, with equal telegraphic directness.

"We need you. Give you twenty-four hundred a year if you will act as our manager. Gus," turning to his companion, who came across, "shake hands with Mr. Nichols. Mr. Nichols, Mr. Wilson, my brother-in-law. Mr. Wilson," he went on to me, "has left a job that paid him two hundred and a quarter, to help me systematize my new company. So, Gus?" he questioned; and Gus nodded.

"How do you want me to begin, and where?" I inquired.

"Rent a place—storeroom and office—in Pittsburgh, your home town," he replied, tapping my knee. "Store it with white lead and oils. Furnish your office well. Hire good painters and decorators—good, mind you—at five and a half or six a day, if necessary; but don't hesitate to overbid other companies in wages and underbid for work, in order to hold your men and secure the contracts. You can refer all bills to me—F. H. Andrews, president, 425 Victoria Building, Toledo.

"I'll send you an automobile—steam or electric—or you can come on through with me to Toledo, and we'll buy it now, and you can take it back with you. Think it over, and tell me how you like the offer." And he and Gus returned to their pencils and paper.

Well, I want to tell you, the thoughts whirled in and out upon me about then. Two hundred a month! A practically independent position! My own boss! But where was I to find credit to store white lead and oils by the ton, to buy furniture, or even pay the first month's rent? And he had said—nothing about advancing anything, nor offered to establish my credit in Pittsburgh. The matter began to look to me like a newspaper advertisement for managers with some capital to invest.

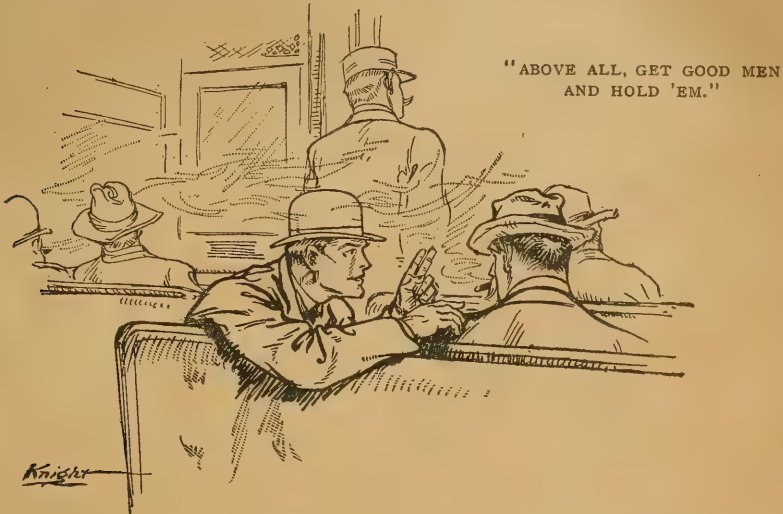
"Well, what do you think about it?" called Andrews across the car. "Will you take it?"

"Don't know whether I will or not," I replied. "I don't know you, nor you me, but I'll think about it."

"Says he'll think about it. Hoo! Hoo!

cause the ravings of a harmless lunatic were such,

Wilson looked back to see if Andrews could see him, but he had gone through the swinging-door into the second compartment of the smoker; so Wilson came over and sat by me.



Hoo! Hee! Hee!" spurted the man who hired, to Gus.

"Why, man," he went on, "it's a sure thing. Make your fortune. We'll buy materials in such quantities that we can underbid them all. We'll get the contracts for all the great amusement parks in the country—painting their scenery and ornamentation.

"Well, there's time yet, and if you decide later to accept, you have my address, and can write me," and he moved down the car—to make more managers, I supposed.

I was beginning to wonder why "Gus" Wilson said so little, for to my mind he looked as if he knew more than President Andrews. I was startled to hear the man's voice just then, speaking to me in a low tone across the aisle.

"Don't mind him," he said—"he's crazy. I'm taking him from Reading to Toledo Asylum. Easiest way to get him there is to keep him in a good humor with this rot of organizing a company."

Well, I just wilted. You could have knocked me out of the window as easy as puffing a pipe. The bubble was busted, and here was I, disappointed be-

"Yes, he's crazy—but harmless if kept in a good humor. I wonder I'm not as bad as he is, considering I've hashed over this rot of his since 4 P.M. yesterday—almost twelve hours."

We talked a while and he told me his companion had paresis, the fruit of a wild young life. He was about thirty-five now, he said. I became mighty sorry for the fellow, and more so for the mother to whom he was going—Wilson said she lived in Toledo.

Pretty soon he rose and gathered up their traps, for, as he said, they hadn't long to ride now, and he might as well go out where Andrews was, to keep an eye on him.

For a few minutes I watched the lessening blackness without, and knew that dawn was not far off, although it was still dark in the fields and along the sky-line.

Andrews looked in at the door.

"Better accept, Mr. Nichols," said he. "We'll have a booming concern in a year from now."

I was sorry for the poor fellow, and humored him, assuring him I would accept: and then, with another of his

laughs and a good-by, he dramatically departed, leaving me to sadly contemplate the misguided actions of a man yet young, bereft of what was, in all probability, a bright and enterprising mind—a mother doomed to bitter disappointment in the hope of her boy's achievements.

The train stopped. The brakeman called Wagerstown, and I knew the next stop was mine—Goonburg. As we started again I was wondering how many in the other car were enlisted as poor Andrews's managers, for he had talked to every one in my part of the car. The swinging-door flew open, admitting a red-faced conductor.

"Have any of you gentlemen lost money or valuables?" asked he unsteadily.

With one accord we all began to feel for watches, jewelry, and money. I felt in my right-hand pocket, where should be fifty dollars and some odd silver. It was empty.

I felt in the left-hand pocket, and found I still had forty dollars in bills, having luckily divided the bulk between the pockets.

Several others reported money gone, and some both money and watches.

"It's those scoundrels that I thought were a lunatic and his keeper," yelled the conductor. "They picked my pocket of all the cash fares, and left the train a minute ago at Wagerstown."

He pulled the emergency cord, and when the train stopped we ran the quarter-mile back to the station in a body.

But, as might have been expected, there was no trace of the rogues. And I'd lost a lot of sentimentality and pity on one of the wretches—as well as fifty dollars of U. S. Treasury output.

We piled sorrowfully back on the train, and in a few minutes I alighted at my destination—*pro tem*.—two miles farther on.

For fear some one should desire some sort of description of Goonburg, I give my own impressions. I arrived at 3.30 A.M., and may possibly be inclined to give too much of a gray-carbon tone to the picture. Goonburg is situated somewhere on the fag-end of nowhere, notwithstanding its being a junction for two railroads and having a respectable frame

station and baggage-room—joint, of course.

The only water-tight surmise I could conjure up, explaining the beginning of Goonburg, was that perhaps there yet remained some odd lumber after building the station, and shelters were built to house the male incumbents at such times when each left his favorite roost on the station-platform.

The waiting-room, as I saw on entering, was ell-shaped, with the office and ticket-window on the inner angle. Two doors led from the extremes of the ell, one giving out on the main-line platform, the other on the branch-line track. A light—the only one save those in the office—burned at the corner of the office wall, but on the P. T. and Q. side by the ticket-window, leaving the branch waiting-room in comparative gloom.

I deposited my effects on a seat, meaning to try for some sleep, for I knew of no train to Freeport before eight.

"What is the quickest way I can take to get to Freeport?" I asked, going to the window.

The night-operator yawned, and appeared to consider.

"Walk, I guess," he said, and grinned. "No train till eight, and you can't reach any trolley lines from here."

So I went back and tried to sleep, stretched out on that bench. It was no go, and I lit my pipe and strolled out into the night. When I got tired of this, I sat on a ladder that lay against the front of my waiting-room.

I had been out about half an hour when I heard voices coming from down the track toward Wagerstown. Presently the forms of two men carrying satchels loomed dimly through the early light, and passed on into the station by the other door. They had not seen me, because of a window that bulged out from the office, deepening the shadow where I sat.

The windows were open—it was July—and I heard them set down their bags, and one of them struck up a conversation with the operator. The voice sounded reminiscent.

"Pretty lonesome, staying here all night, isn't it?" The voice was casual.

"Oh, sometimes yes, and sometimes no," came the answer. "I go on at

eleven, and I'm relieved at seven in the morning.—Always some chore to do, though—settin' signals, answerin' the key, and so on. When I get a half-hour or so I cat-nap or read a magazine story."

I looked slantwise through the window, being curious about the stranger's voice, and saw the operator leaning on the window-shelf, one hand under his chin, supported by his elbow, the other hanging down inside. The strangers I couldn't see, for the agent's body blocked the window.

"Excursion up to Cedar Point to-morrow, isn't there?" remarked the stranger—again casually.

"Sure; want tickets?" asked the key-tapper and ticket-seller combined.

"Not now. We may go up in the morning, though. Many going?"

"Yep; sold a hundred and five to-day. Guess there'll be more sold before train-time."

Just then a Smith & Wesson appeared through the window, and the stranger made another casual remark.

"Better pass out that coin for the hundred and five tickets," he said, adding, "and any more you may have that isn't tacked down. Needn't trouble about refusing, for there's another Gatling covering you," and he nodded toward the door where the other stranger appeared, leaning through the window.

I looked, too, and saw Gus Wilson, the lunatic-keeper. I had no doubt then who the other was—the man with the reminiscent voice.

I had no weapon, and was casting about for some way to aid the operator. The loss of that fifty dollars and all that pity and sentiment still rankled deep.

Suddenly the agent dodged, and, as his arm shot up, there came a flash and report, followed by two more that sounded as one. Gus fell with a thud that made

me think he was dead, and the operator staggered back into a chair, his revolver falling to the floor. The other man—Andrews—slipped in through the window, and was picking up the agent's gun as I crept softly around toward the other door.



"BETTER ACCEPT, MR. NICHOLS.
WE'LL HAVE A BOOMING CONCERN
IN A YEAR FROM NOW."

When I got there I heard no movement from Gus, so I peeped carefully around the jamb. He was unconscious—dead, maybe—and his gun lay a foot inside the door.

I secured it quietly, and made sure Gus had no more weapons, in case he should come to. I could hear Andrews, president of the Andrews Decorating Company, ransacking the cash drawer, and then he moved over to the open safe.

Lights began to move in the houses down the road, so help in some form would doubtless arrive soon. I crept along the office wall to the ticket-window,

then, rising suddenly, I leveled the gun at Andrews's back.

"Mr. Andrews," I said, "you are abroad a trifle early. However, I always admired early risers, and you appear to be engaged in catching the proverbial worm."

but he sprang toward me. Cool, wasn't he? Well, I was too hasty for him, and fired as his hand was diving under the shelf, boring an awful hole in his arm and plowing up that good yellow-pine floor deep enough to plant a potato in.

He sprang back with a cry, then stood,



"I WAS TOO HASTY FOR HIM AND FIRED AS HIS HAND WAS DIVING UNDER THE SHELF."

He whirled around and eyed the muzzle of Gus's thirty-eight—well, not exactly with eagerness, but still with self-possession.

"Well, I'll be gashdoodled," he remarked, "if here isn't one of those decorating gulls on top, after all. And with Gus's gun, too, so I suppose the poor boy is down and out."

His eyes dropped to a point just inside and under the shelf, and quick as an eye-

coolly stripping up his sleeve and wrapping a handkerchief around the hole.

"Good shot," he vouchsafed, knotting the bandage tightly. "Much obliged for sparing my head-piece."

"It is personal inconvenience I am eliminating," I returned, reaching over and securing the two guns from the cash drawer beneath the shelf. "No obligation due on your part," I continued. "Your errors, in not making certain that

the agent was alone, and then in separating yourself from your gun, are responsible. Just sit down over there and be quiet, and some of your friends will soon see you comfortably housed for the night—what there is left of it. Don't crack your etiquette again, for I only hit twice out of three where I aim, and the next one may go higher and a little to the left."

He did as I ordered, but seemed hurt that a former dupe had got the upper hand of him.

"Throw up your hands, durn ye."

I turned to see the town marshal and two farmers with leveled guns.

"Pull that body out of the way," I rejoined, "and open that door. Your man is sitting in there, waiting for his wristlets."

Their jaws dropped at my tone, but

they did it, and soon the promoter of financial ventures that made Rockefeller and Carnegie look green was under guard and on the way to the calaboose. The plucky operator was shot through the shoulder, but a dash of water wakened him.

He wanted to know how they caught the fellows, and looked astonished when they pointed me out, having actually believed me to be one of them.

Well, I got that fifty dollars back, and the conductor got his cash fares. All the other passengers who could be found were reimbursed.

Gus was dead—the agent's bullet struck him right between the eyes. And I was glad when my train came, for I had to repeat the telling of that "Daring Attempt to Hold Up a Night-Operator" at least forty-nine times.

THE RAILROADS MORE FRIENDLY.

THAT there has been a decided change in the attitude of the public, especially in the West, toward the railroads and the questions arising out of railroad operation, is frequently made evident nowadays.

The radical intolerance which characterized public sentiment two or three years ago, is giving place to a rational desire to see the relations of public and railroads put on a better basis. There is recognition of the interdependence of the agencies of transportation and the communities they serve, and the corollary of that interdependence is that fair treatment on both sides is necessary, says the *Minneapolis Journal*.

Evidence of this changed attitude is usually apparent when some great railroad builder, like James J. Hill, appears on the platform at a public gathering. Mr. Hill, busy man though he is, readily responds to such calls, and is usually received with the utmost enthusiasm. His plea that the farmers of the West ought to remain good neighbors with the railroads was enthusiastically received. The incident would have been almost impossible at any farmers' gathering four or five years ago, although Mr. Hill himself, by reason of his intelligent interest in farming and far-sighted understanding of its needs, has always been a welcome guest at farmers' gatherings.

Nor has the change been entirely on the part of the public. The railroads themselves have moved over to a position that has made the public's attitude possible.

They have abandoned such ancient and revered principles of rate-making as that expressed by "All the traffic will bear." They have come to a realization of the fact that, deriving their rights to act as common carriers from the public, they are charged with certain duties toward the public that created them.

The more enlightened and practical railroad men are sparing no effort to establish better relations with the public at all points of contact. Station agents and trainmen are instructed to be polite and accommodating to patrons.

They are to exert themselves to the utmost in this direction, for the great managers realize that on such little things is public sentiment founded.

Mr. Harriman himself, before his death, completely changed his attitude toward the public, and toward the public's humble servants, the reporters. This change sprang from a realization that the success of his plans were impossible if he permitted the hostility and prejudice against him, which his reticence no less than his policies had aroused, to continue and to grow.

The great railroad problems are largely unsolved as yet. We are again approaching their serious consideration in Congress. The President has outlined far-reaching, constructive legislation. In the changed attitude of public and railroads toward each other, there is promise of solutions of these problems with justice to both sides.



The Railroad Man's Brain Teasers.



WE are still teasing the brains of our readers, and having our own teased in return, by the clever puzzles that continue to come in. We thought we had worked the puzzle ground pretty dry, but we were wrong. Puzzles are still to be had; but, on the other hand, don't think that we are getting so many that we can do without that good one that you know. Send it along. We want it.

This month we are indebted for a couple of good ones to Mr. F. Einsel, of Struthers, Ohio.

There are two given spots, one on the extreme base of a $4\frac{1}{2}$ -foot drive-wheel, the other on the extreme base of a pony truck-wheel which is $1\frac{1}{2}$ feet.

How much farther will the spot on the drive-wheel travel in 50 miles than the spot on the pony truck-wheel?

An engine with 13-foot drive-wheels, hauling a heavy train, runs over 14 grade crossings in 10 miles. Seven of the grade crossings are 20 feet wide, and the other 7 are 30 feet wide. The drivers slip and revolve 24 times over each of the 20-foot crossings and 37 times over each of the 30-foot crossings.

How many revolutions will the drivers make in the 10 miles?

For another of the teasing variety we owe our thanks to Mr. A. L. Monroe, Indianapolis, Indiana:

A belt conductor delivered a cut of cars to the Sanky yard.

Yardmaster McGuffin told him to leave half of the cars he had and half a car over in track 8, and leave half the cars he had left and a half a car over in track 7, then leave half the cars he had left and half a car over in track 5, and put the rest of his cars in track 4.

How many cars did the conductor have, and how many did he leave on each track?



The Sunny Side of the Track.

Lubricate the Grime and Soot of the Long Day's Run with a Good
Hearty Laugh—Don't Harden Them with a
Weary Scowl.

A GOOD NAME.

CHAMP CLARK, Representative from Missouri, dearly loves a good story at the expense of the State of Arkansas.

"One day," said Mr. Clark, in the course of a political conversation, and branching off from the main subject, "as a train from the East pulled up at the dinky little station of a most depressing town in the fever and ague district of Arkansas, a passenger, thrusting his head out of the car-window, demanded in bitter tones of a dejected looking citizen who was leaning against the station door:

"Tell me, what do you call this dried up, dreary, God-forsaken place?"

"That's near enough," replied the native, in a melancholy voice, 'let it go at that.'"—*Washington Herald.*

RETAIL TRANSPORTATION.

THE venerable farmer with the tobacco-stained whiskers and furrowed brow climbed aboard the limited and shambled into the smoker.

"Mister," he drawled, when the conductor halted before him, "is that thar two-cents-a-mile rate good on this train?"

"It is," replied the conductor brusquely. "Where is your ticket?"

The old man fumbled in the depths of an ancient shot-bag.

"Ain't got no ticket, mister," he said slowly, "but here is two cents. I never rode on one of these pesky fliers, and I just want to feel the sensation. Put me off after I've rode one mile."—*Railroad Telegrapher.*

PERSISTENT GRATITUDE.

SMITH, the railroad agent at a suburban station, saved the life of a dignified gentleman waiting for a train, by pulling

him from in front of a through train on another track.

The dignified gentleman lost all his dignity for the moment and was much confused, but not so much as to forget that something was due to the agent. Following a grateful impulse, he thrust his hand into his pocket, and, drawing it forth, exclaimed:

"Man, you've saved my life; here's half a dollar."

"Oh, I never take payment for a thing like that," answered Smith, as he turned to attend to the duties of the moment.

"But, man, you must; you saved my life. Have a cigar, anyway."—*Harper's Weekly.*

NON-COMMITTAL.

IHAD always thought the public servants of my own city were the freshest on earth," says a New York man, "but a recent experience in Kansas City has led to a revision of that notion.

"One afternoon I dashed into a railway station of that town with just half a minute to buy my ticket and enter a train for Chicago. I dashed through the first gate, and, pointing to a certain train, asked hurriedly of the gateman:

"Is that my train?"

"Well, I don't know," replied he, with exasperating deliberation. "May be it is, but the cars have the company's name on them."—*Harper's.*

A GOOD CROSS.

SHORTLY after a new administration took hold of a well-known Southern railroad a great number of claims were preferred against the company on account of horses and cattle being killed along the line in Kentucky. To make matters worse, it appeared that every animal killed, however worthless it may have been before the

accident, invariably figured in the claims subsequently presented as being of the best blood in Kentucky.

One day, in conversation with one of the road's attorneys, the president became very much excited in referring to the situation. "Do you know," he exclaimed, bringing down his fist on the desk, by way of emphasis, "I have reached the conclusion that nothing in Kentucky so improves live stock as crossing it with a locomotive."—*Harper's Monthly*.

A LINE OF TALK.

ACCORDING to the *Philadelphia Ledger*, two telephone girls were talking over the wire. The subject was a lawn party, which was to take place the next day. Both were discussing what they should wear, and after five minutes had come to no decision.

In the midst of this important conversation a masculine voice interrupted, asking humbly what number he had. The lack of any reply did not squelch the inquirer, for he asked again for the number.

One of the girls became indignant, and scornfully asked:

"What line do you think you are on, anyhow?"

"Well," said the man, "I am not sure, but judging from what I have heard I should say I was on a clothes-line."—*Express Gazette*.

CAR AHEAD.

ONE cold, winter morning a man of tall and angular build was walking down a steep hill at a quick pace. A piece of ice under the snow caused him to lose control of his feet. He began to slide and was unable to stop.

At a crossing half-way down he encountered a large heavy woman. The meeting was sudden, and before either realized it a collision ensued and both were sliding down hill, the thin man underneath, the fat woman on top.

When the bottom was reached and the woman was trying to recover her breath and her feet, these faint words were borne to her ear:

"Pardon me, madam, but you will have to get off here. This is as far as I go."—*The Argonaut*.

CLASSICAL PAINTINGS.

"A CLASSICAL education," said the engineer, who could read Latin when he was eight years old and had mastered

Hebrew before he was ten, "should be given to every boy, no matter what his surroundings are.

"For instance, a sign-painter should receive a classical education. He has often to do with subjects taken from the classics, and if ignorant of classical history, then his value is so much the less.

"I was once connected with a railroad company which had a number of barges and the first one was named Ajax. After a short time we built another barge and we decided to have it also named Ajax.

"I sent for our painter and told him we would have a series of these boats and would give the same name to all.

"Did you say you was going to have a series of them Ajaxes?" he asked.

"Yes."

"A few days after we went to look at the barge and he had painted on it 'Bjax.' The next vessel he named 'Cjax,' and then came and asked us what the tom-fool words meant."—*San Francisco Call*.

DOGS AM DOGS.

MIKE FLANNERY, the express-agent whose experience with pigs and the multiplication table are recited in "Pigs Is Pigs," is not the only humble agent to become entangled in the complexities of live-stock transportation.

The prosy reports of the Interstate Commerce Commission hint at a story with somewhat similar possibilities:

The agent of a shipper not knowing the value of a dog to be sent by express, nevertheless named a valuation of \$500, and the resulting charges to destination amounted to \$45. The dog was actually worth \$15, and at this valuation the express charges would have been \$8. The consignee declined to accept delivery and pay the charges demanded. Upon inquiry whether charges may be collected on the basis of the actual value of the dog, it was held that the shipper is responsible for the act of his agent, and that the charges at the valuation given must be collected.

What, we wonder, has become of the dog during the time that this appeal has been traveling to the Interstate Commerce Commission?

Has some humble Mike Flannery been buying it biscuits out of his slender wages? And if the owner still refuses to pay \$45 charges on a \$15 dog, what will become of the dog? Under what account could his up-keep be entered?

No struggling express company can afford to keep a dog; that is a luxury, doubtless, its officers will decide to leave to Mike.—*Chicago Post*.

THE SPIDER OF PALERMO.

BY EDWARD BEDINGER MITCHELL,

Author of "An American Knight Errant," "The Yellow Rose," Etc.

Brains, Bluff, Villainy, and Courage Rake in the Pot.

CHAPTER XXI.

An Old Friend.



SOME fifteen minutes afterward the door of the back room opened and Mr. Peter Marshfield stalked into its reeking atmosphere. The Wall Street magnate was in no good humor, and his gaze traveled from his son to his son's friend in cold displeasure.

"There are four saloons on this corner," he remarked. "I went to the other three first, and I am not as fond of saloons as you two seem to be."

David laid his hand on the great man's shoulder with the confidence of a deep, if reserved, affection. "I knew you would come," he said.

Marshfield's answer was a scarcely articulate grunt. "Of course I came. I'm your father, ain't I? Now, what's all this about?" Striding over to a table, he laid his stick on it and faced us like a judge about to deliver sentence. "So you're here, Paget. Still hunting villains, or what?"

I had no answer ready for the rough sneer. The short space we had waited for him I had employed in racing over to my apartments. David had been a true prophet; the black book I had snatched from Cagno's pocket, the key to the Abyssinian papers, was gone.

There was no time to listen to the confused explanations of the doorman. The book had been taken from my desk. One glance told me that, and then I dashed back to the saloon. Now I stood panting

and silent, wondering how on earth old Marshfield was to help us. David answered for me.

"Run to earth," said he, a note of triumph in the low voice. "Steve told you a story this morning you wouldn't listen to, father. It was true, just the same, and you've got to listen to me now."

"That's what I came here for," retorted Marshfield. "What is it?"

Leaning against the table, his hands behind his back, he heard his son through without a word or a gesture of surprise. Only when I laid the map and the deeds before him did he move. Then he took his glasses from his pocket, placed them deliberately on his nose, and leaned down to examine the booty. Even then his face revealed nothing as he studied the papers one after the other. When he had finished, he straightened up, replaced the glasses in his pocket, and turned to me.

"All of us make mistakes," he said. "I made one this morning. I was busy, and you irritated me. At the time, I remember, I thought it was all moonshine. Of course, I might have known that if Rocca had had the papers, he would have come up with them before. Still, they are not much good without the key, and Rocca's got that, you say."

"Confound the key!" I broke out. "He's got Miss Bigontina!"

"So I understand." Old Marshfield raised his hand to stroke his mustache with a hesitation that sat strangely on him. "I suppose you are in love with her, and you don't like the idea. We might try a trade—the papers for the

girl. I dare say you'd think it a good one."

David shot one quick glance at me.

"How do you propose to find the man to make the trade with?" he asked. "We can't take the police to the house without killing Miss Bigontina. How are you going to see Rocca?"

His father reached behind him for his stick. "By sending in my card," he answered. "That's one way of seeing people; and if I do see him, I'll get the girl—but I'm not so sure he will get these papers."

I was too amazed to question how. Truly I had not known David's father well. The man who would not even listen to me when I intruded upon him in his office was now, of his own accord, about to venture alone where no other man in the city, knowing what he knew, would have dared to go.

It was quite true that he was safer than any other man would have been. Peter Marshfield was too big a figure in America to be attacked with impunity, and in this case he was Rocca's last hope for the wealth he had snatched at. But it takes nerve to remember such things when one is defenseless in the castle of one's enemies.

Unbounded admiration for the stern fighter in front of me was the one definite thought in my brain as we rolled away from the saloon in the cab. The cabman had agreed to take us as near as he dared to the house. From there the banker would have to trust to his own resources. They had never failed him yet; as my gaze drank in the strength of the jaw and mouth, the heavy forehead, and deep-set eyes, I did not believe that they would fail him now.

The cab rolled down Fifth Avenue and into Washington Square under the white arch. When I first passed it that day, on my way to Maria, the morning sun had been high above it. Now the white marble was bathed in the glory of the flaming west; already the memorial cross had sprung into light over the bare trees and crowded pavements. The day was dying, the longest I have ever lived. With unspoken thankfulness that it was over at last, I leaned forward to see its farewell.

The cab stopped with an abruptness

that flung me onto the knees of the startled banker. The door was wrenched open, a man shot in upon us, slammed the door behind him, and cried out to the driver: "Go on! Go on!" The next instant David and I held him, gagged and helpless, at our feet.

"What the deuce—" my friend began when I knocked his hand from the fellow's mouth. It was the violinist of the Auvergne, and he was struggling hard to speak.

"I have come back," he spluttered in breathless, foreign English, as I helped him to the few inches by my side on the narrow forward seat. "I have come back to help you. I ran before, but I am no coward. I will fight."

"Good for you, and how?" David spoke in light-hearted joy of battle as he faced our unexpected ally. "Whom are you going to fight, my friend?"

"I fight them all. They have been worse to me than to you. Why should I leave you to fight, then?"

"Search me," returned young Marshfield. "But you didn't come in here as if you were spoiling for a fight."

The violinist spoke with inborn dignity.

"I fight, sir," he said; "but I fight with my head as well as my hands. I wish to aid Mr. Paget, who has much befriended me, not betray him. Therefore, I waste no time where spies may watch."

"You are wise as well as brave," I put in, in haste to intercept whatever ill-judged jest David may have meditated. "But what brings you back? You told me that you were a doomed man in New York?"

"I met Rosa," he answered. "I met her as I went to take my train. I knew her years ago, when we were both young."

"We talked, and she told me things that I did not know—that it was the Signorina Bigontina that they pursue, that Rocca himself may be here, that now is my time to strike for the daughter of the dead Signor Bigontina, the man who helped me, to strike at the man who murdered my brother. I come to fight, sir."

"Well, you've come to the right shop!" cried David, startled out of his humor by the intensity of the man's emotion. "At least you have, if this cabman is telling the truth."

"Where are you going?"

The violinist leaned forward, his eyes bright with the fire I had seen in them when music carried him beyond himself.

"To Jefferson Street—149 Jefferson Street; at least, my father is. We're—now what's the matter?"

"It is the house—I have heard them talk of it. Ah, do you think I sang with my eyes and ears shut in the Auvergne all these years—I, who knew their devil-try? They did not know me—only Ghedina—and him I never thought to see again. So I watched and listened and learned."

"What did you learn?"

Old Marshfield spoke as he might have spoken to a clerk in his office. He was going to risk his life in that house, but there was no quaver of fear in the peremptory demand for information.

"It is their most secret place, sir. They have several in the city, but this is their most secret. I have known of many who went there, but never of any who came away."

"You will know of one soon," returned Mr. Marshfield as he settled back into his seat. "Is that all?"

"No, sir. I have investigated myself—quietly, you understand—for always I have dreamed of my revenge. It is not all. The house is on the heights, the water is below; but from the house to the water there is an alley running down to a dock."

He paused for a second, as though to give due weight to his next words.

"A few days ago a steamer came to that dock. It is a fruit steamer, the Cavour, from Palermo. It is one of Rocca's. There are lumber and coal-yards near that dock; the Cavour is supposed to carry fruit. Why is she there?"

"Lemons," grunted David. "By Jove, more lemons!" But his father and I sat silent.

"It is quite plain," Marshfield spoke at length with cold precision. "He intends to take the girl away on the steamer. We could have the house and the boat searched. We might find something, but it would not please you, Stephen, if you really care for her. I will try him with these papers. There is the chance that he will bite; if he does not, we will try something else."

He put the cigar back in his mouth as though the last word had been said, smoking steadily on as we drove toward the bridge. There were a thousand questions we might have asked, a thousand things that I would have been eager to learn at another time. Now, with all my life staked on one wild throw, I had no interest in the shape of the dice.

The violinist's long fingers twined nervously together, and his lean face was blazing with the thirst for vengeance; but he said nothing. In absolute silence the four of us, crowded in the cab, jolted onward through the swarming streets.

Only when we were high above the river, in the center of the bridge, the musician's hand closed on my arm. "Look!" he breathed. "It is the Cavour."

His arm pointed downward, through the open window of the cab, to the Brooklyn water-front. A tramp steamer lay at a pier below us, a thin trail of smoke rising from her funnel into the softness of the coming night. On the heights above, clear against the evening sky, stretched a row of commonplace brownstone houses. In one of them, or in that steamer, was Maria Bigontina. The cab rolled on over the bridge as we peered through the narrow window until houses and steamer were shut from our sight.

A minute later we came to a halt, and the driver appeared at the window.

"This is near enough," he said. "Anybody can show you how to get to Jefferson Street. I'm not going there, I can tell you."

Peter Marshfield stepped heavily down to the sidewalk. For a brief second he stood motionless, then turned with outstretched hand:

"Good-by, Dave," he said. "Good-by, Steve. I'll do the best I can for you." He started across the street, and a passing trolley-car hid him from our sight.

CHAPTER XXII.

In an Hour or Not at All.

"SO now you comprehend, gentlemen, why every foe of Rocca's is a friend of mine." The musician's story

was ended—a story of cold-blooded villainy, persecution, and suffering into which it is not necessary to enter again. He had told it to us in the cheap restaurant outside of which the cabman had stopped.

Nothing short of that tragedy of blood could have held our attention as we sat there, waiting, hearing in every sound the heavy tread of the banker, hoping for his return before he had even had the time to meet his peril. But the musician had held us. Fortune had brought him and his brother, years before, to Palermo, to be befriended there by the dead Luigi Bigontina. For a while the fates smiled, and then came the crash.

Somehow, his brother had permitted himself to be swept into the net of the Mafia—there was at times something to be said in its favor, but not as Rocca ruled it, and Rocca ruled it absolutely. When the boy learned what was expected of him, he mutinied. And to mutiny against the Mafia there is but one end.

In trying to save his brother, the violinist had drawn on his own head the same doom. He had escaped, it is true, but for the moment only. At the Auvergne, with his soul eaten with ungratified vengeance, he had fiddled and listened.

"I was as safe there as anywhere," he said; "and a man must live, gentlemen. I had only my violin."

The coming of Ghedina had thrown him into a panic, only too well justified, but his conversation with Rosa, the old servant of the Bigontinas, had fired all his lust for revenge. As he told us in the cab, he had come back to fight.

So Rocca was head of the Mafia, and it was the Mafia we had been fighting. It was hardly a surprise, but it was none the less appalling. I knew something of Sicily, and how helplessly it lay in the grasp of its secret tyrant. Even if Marshfield returned in triumph with Maria Bigontina herself, it would not be victory. The shadow would be upon our lives until the end, as it was upon the musician—and the end was almost inevitable. It was he who voiced my thought:

"If Rocca gets back to Sicily, we are as good as dead. No one can touch him there."

"He won't get back," growled David between clinched teeth, and at that moment the door of the restaurant opened. Peter Marshfield had returned—and returned alone. He walked steadily up to us and sat down, his face as rigid as a bronze cast.

"Get me something to drink," he ordered. "I think I need it."

"Where—" I broke out; but Marshfield waved his hand impatiently.

"Wait. You might as well hear this from the beginning." And it was from the beginning that he told it to us, omitting nothing, dwelling on nothing, speaking as though he were expounding a problem of finance.

When he left us, he had found his way without difficulty to Jefferson Street. It was a quiet Brooklyn street, lined with houses of the better sort, and 149 was like its neighbors, substantial, unpretentious, uninteresting. He walked up the steps of the stoop and rang. He waited for an answer.

There was no answer, and again he rang. Still there was no answer. Then Marshfield pressed his finger against the button and held it there, while the bell clamored its summons throughout the house and out into the street.

As usual, Marshfield had calculated accurately. Visitors were unwelcome at 149 Jefferson Street; but an obstinate old gentleman attracting the attention of the entire neighborhood by his persistent demand for admission was more so. In an instant a key turned, the door was opened on the chain, and a surly face peered out.

"What you want?" demanded its inhospitable owner.

"I want to see Mr. Rocca," returned Marshfield.

"Not here," and the man attempted to slam the door. He succeeded only in closing it upon the broad sole of Marshfield's shoe.

"Yes, he is," said that gentleman. "I know better. Give him this card. Look sharp now," for the fellow was hesitating, perplexed by the visitor's assurance. "Look sharp, or it will be the worse for you when Rocca hears of it."

I suppose it was the air which years of unquestioned authority bestow that overawed the man. Muttering something

about inquiring within, he departed with the card, leaving Marshfield with his foot in the crack of the door, the victor in the first skirmish. In a minute or two the man returned, transformed into an obsequious servant.

"Will the gentleman please to enter?" he asked, swinging wide the guardian door.

He escorted Marshfield across the hall to a small reception-room, flung open the door for him, and departed. In the center of the room, his hands behind his back and a forbidding smile on his heavy lips, was Signor Rocca.

"Good evening, Mr. Marshfield. I had hardly expected this honor."

"I had hardly expected to pay it," returned Marshfield, unruffled; "but business is business, Mr. Rocca."

"Quite so, and how did you know that I was here?"

"It is my business to know many things, for instance"—Marshfield deliberately drew up a chair and sat down—"for instance, I know why you did not produce the evidence I demanded."

Rocca's lips tightened and his eyes narrowed. "Indeed, and why was that?"

"For the good reason that you did not have it. I have." Rocca stepped between Marshfield and the door, but the banker merely followed him with his eyes. "I didn't bring it with me, Mr. Rocca. I was not born yesterday."

The Italian laughed shortly: "You seem rather suspicious, Mr. Marshfield. Are you in the habit of doing business with pickpockets?"

"Sometimes," answered Marshfield, and I can picture the figure of the grim old man sitting quietly in the chair, gazing straight into the scoundrel's eyes.

Rocca's face darkened at the thrust, and he frowned down on his visitor. "Did you come here to insult me, Mr. Marshfield? That is likely to be a dangerous amusement. Also, I may remind you that you do not own this evidence of which you speak."

"Bosh!" The banker crossed his legs, settling back comfortably in his chair as though for a prolonged session. "Bosh! You don't own it, either. The difference is that I have it and you haven't. That's the difference; the question is, what are we going to do?"

"I see," Rocca's face cleared. "You come to propose what you call a deal."

"I did not come for the pleasure of your society," retorted Marshfield, and for a while there was silence in the little reception-room.

"Well," said Rocca at length, and he walked carelessly away from the door, "what do you propose? You have seen the evidence; is it satisfactory?"

"Quite. There is only one thing lacking."

"Ah, and what is that?"

"The key."

"Oh!" Rocca's face was fairly wreathed in smiles as he beamed down on his visitor. "Oh, you have found that out? The papers aren't much without that, are they?"

"No. Just a little more than the key without the papers." For a minute the two men eyed each other before the banker went calmly on: "Under the circumstances, I think we might as well go back to where we began."

"You see, we really have to give this man Paget something. He knows too much not to. I don't care about giving him, money, so we had better give him the girl."

The assured impudence of the suggestion was too much even for Rocca's composure. He started forward with an ugly scowl and raised voice:

"What girl? What talk is this? Paget—" He controlled himself with an effort in front of the chair where the banker sat impassive. "You are crazy, Mr. Marshfield," he ended with a belated attempt at a sneer.

"Oh, no, merely prudent. As you remarked, neither you nor I own these papers, and Paget knows it. It would be awkward if he talked. Give him the girl and he won't. It's all quite simple, if you would scowl less and think more."

Rocca's face was black, and his fists clenched, but the outbreak did not come. Instead, he glared impotently at his visitor in a tumult of indecision that choked his rage. Gold was the god he worshipped, and Marshfield held it out to him. But, on the other hand, there was Maria. Surely there was some way to win and keep both—only, at the minute, he could not see it.

Peter Marshfield read the man as

plainly as he might have the newspaper head-lines that told of his latest financial coup, but he said nothing. Only he swung his foot idly and waited, his gray eyes relentlessly tearing the mask from the scoundrel before him.

The Italian made up his mind at last. With a forced laugh, he turned away from the banker to lean with outstretched hand against the wall, close to the door.

"You are crazy," he sneered. "I know of no girl."

"Nor I of any papers." Marshfield rose quickly to his feet in stern command. "Don't ring that bell, Mr. Rocca. You don't dare touch me."

And Rocca did not. His audacious eyes met Marshfield's unflinchingly, but his hand did not press the hidden signal whose existence the banker had divined. It still lingered there, however; when he snarled: "And why not?"

"It wouldn't pay," said Marshfield quietly. "You would lose your Abyssinian mine, and you would get the whole United States at your heels. Stephen Paget is an unknown newspaper man, Mr. Rocca. He may disappear with every girl he ever knew, and it is no one's business. But I—well, there are men who know where I have gone, and I am Peter Marshfield."

Rocca's hand crept slowly downward to his side. It was perfectly true. If he had touched Marshfield, he would have been a hunted man all the rest of his life. It was not worth it. The banker nodded his head in satisfaction as he watched.

"That is better; now, do you think you could find this girl if I should suddenly discover the papers? After that, we might continue the negotiations you were kind enough to begin with me a few days ago."

"You take a deal of interest in this girl," replied the Italian. "What is it to you where she is?"

"I thought I had told you once," said Marshfield wearily. "Paget is not to talk. Now, are you going to give her to me or not?"

Rocca did not answer at once. He was thinking hard, his keen mind striving to wrench some advantage from this new situation. Involuntarily, he stepped across the room to a side window and

looked out. Marshfield's tireless, persistent eyes followed, looking out too.

Beneath the window the ground fell abruptly away, a steep hill tumbling down to the yards of the river-front. Through the dusk shone the lights of a steamer, and a smudge of rising smoke was dimly outlined against the sky.

Rocca turned sharply on his heel. "In an hour," he said, "if you bring me the papers, I will give you Maria Bigontina. She is not here, but doubtless my friends will oblige me by bringing her. But they will bring her nowhere but here; therefore, you must bring the papers here."

"I am here already," answered Marshfield. "One hour is as good as another. Give me the girl. You have the key already; the rest you can have for the asking at my office."

The Italian shook his head. "Possibly; I run no chances. Bring me the papers in an hour, and come alone. Besides, Marie is not here."

"Oh, rot!" began Marshfield; but Rocca interrupted him with a loud call: "Giuseppe, the door for this gentleman. In an hour, Mr. Marshfield, or not at all—it is my last word."

The burly figure of the doorkeeper loomed beside my friend's father. His errand was over. Rocca bowed farewell to him, and the door of 149 Jefferson Street was locked behind him.

CHAPTER XXIII.

Drawing the Net.

AS he finished his narrative, Mr. Marshfield reached across the table of the little restaurant. "Give me those papers, Steve," he said. The map and the deed were in his hands before I grasped the meaning of his request.

"You're not going back!" I gasped. "There's no faith in the man. If you had had these things the other time, you would never have got away."

Old Marshfield smiled grimly. "Quite right, Stephen, I never would have. Nevertheless, I am going back. Excuse me a minute." He stalked to the rear of the room, and we saw him busy in a telephone-booth.

"He's got something up his sleeve,"

muttered David, as we watched the gray head bending over the instrument. "I wonder what the dickens it is?"

"There's no faith in Rocca," I repeated. "We can't let him go back. We oughtn't to have let him go at all."

"Don't worry about the governor," retorted Dave. "He knows what he's up against. I wish we knew as well."

His father may have known, but he was in no hurry to inform us. When he returned he seated himself again at the table, laying his watch before him without a word. Once I opened my mouth to speak, but closed it again. The least I could do in gratitude was to respect his silence.

The strain told, however. It seemed as though I could not keep my seat, could not maintain that horrible silence another second, when the door of the restaurant opened to admit three men. They were all big, inclined to corpulence, but still strong and active and endowed with obvious aggressiveness. After one quick glance about the room, one of them stepped up to us.

"This is very strange, Mr. Marshfield," he began, but the banker cut him short.

"You ought to be used to strange things, inspector. We have been waiting for you."

"I came quickly enough," said the other, and I recognized the gruff tones, at once as those of Inspector McCormick, the head of the detective bureau. "Lucky I was in my office. It's not every policeman who would chase over the city for a telephone message."

"It wasn't every policeman I was telephoning to," retorted Marshfield. "Did you do as I asked?"

"Of course," snapped the other. "I know my job. But what are we up to now?"

"Waiting," answered Marshfield. "If you have those guns I asked for, you might hand them over to my son and Mr. Paget here."

McCormick regarded us doubtfully. "This is very unusual, Mr. Marshfield," he said. "What is this affair?"

"Ours," said the banker curtly. "I don't ask many favors, McCormick, but I ask this. You wait here half-an hour. If I'm not back by then, go round to 149

Jefferson Street and break the place open. Until then, it is our affair; after that, do what you like. You know me; will you do it?"

"I don't like it, Mr. Marshfield—"

"Neither do I," interrupted the banker, rising to his feet; "but it's got to be done. Come along, you three."

Clutching the revolvers the policeman reluctantly handed to us, we followed him to the street in a daze. There he halted to give us our instructions:

"You three go down to the pier by the steamer, and wait in the alley this fellow told us of in the cab. If anybody comes along, stop him. I fancy myself it will be Rocca, and in a hurry. If it is, make him take you to the girl. The police will be round in the neighborhood somewhere if you need them; but I prefer to trust you. Somebody may have to think, you know. Good-by."

He was a rod or two up the street when David sprang after him and grasped him by the sleeve.

"By Heaven, you sha'n't go!" he cried hoarsely. "Give me those papers, and let me take them."

Wrenching himself free, Peter Marshfield wheeled roughly upon his son. "Do as you're told," he growled. "Go fight with your hands, and let me fight with my head."

Turning his back upon us, he strode up the street. I heard David give a choking little gasp, and there was a queer lump in my own throat; but it was the violinist who spoke:

"He is a brave gentleman. Come, I will show you the alley."

By a labyrinth of devious byways, he brought us out at length upon the river, close to the uncovered dock where lay the fruit steamer. It was quite dark now, and, as far as we could tell, there was no one about to observe us as we clung to the shadow of a high fence.

Far above us many lights marked the row of quiet houses on the heights. Between their solid respectability and this obscure section of the city's water-front, there seemed no possible connection. Yet there was one. The fence on our left stopped suddenly, to begin again a pace or two beyond.

The gap between was the mouth of the alley which the musician had discovered

in his midnight prowlings about the fortress of his unsuspecting enemies. We dived into it, and were swallowed at once in the dense shadow.

It was too dark to do more than inch our way slowly forward. We felt the ground rise sharply under our feet, and knew that we were climbing toward the house, but of what lay on either side we could form no idea. The alley was narrow, however. When we halted well up the slope, there was no chance for any one to pass us. One exit from 149 Jefferson Street was effectually barred.

But what was happening at the entrance? In the darkness I still saw Peter Marshfield's broad back as he swung away from us to he knew not what. There was no faith in Rocca, and now he had the papers with him. There was no faith in Rocca! How many times I said that to myself I do not know. I was still repeating it when the words were driven from my head.

Through the blackness above a man was coming down to us—coming as fast as the steep slope and slippery path permitted. We heard his heavy footsteps, and then a dark form shot in front of us. I dived at his knees as he came, struck them with my shoulder, and, with my arms twined about his legs, brought him to the ground, a helpless mass. While I clung to him, blindly obeying old Marshfield's instructions to stop whoever came from the house, David struck a match in the shelter of his hands.

"By all that's holy, it is Rocca!" he cried, holding the little flame close to the fallen man's face. "Get up, you!"

Grasping the Italian by the collar, he dragged him to his feet, still dazed by the violence of his fall. "Where is she?" he snarled. "Speak, or I'll—" The threat was the more significant for its not being finished, but Rocca could only gasp for breath.

"She's on the steamer," I breathed in his ear, my very hope warning me to caution. "Your father guessed it. Rocca's got the papers, and he's trying to get off himself."

"You're right. But what then?"

"This." The time had come for the last chance, the last charge of the old guard that would win or lose it all. I

slipped my arm part way through Rocca's, and the muzzle of Inspector McCormick's revolver pressed against the villain's side. "You feel that, Mr. Rocca? That's a pistol. March!"

The Italian did not hesitate. He had seen too many men killed in his life to count on my possible reluctance to shoot down a man in cold blood. And my blood was not cold. At that moment I believe I would have killed him with as clear a conscience as ever a soldier fought the battles of his country. Fortunately for my future peace of mind, it was not necessary.

We emerged from the alley, a little knot of men shutting in our captive, the revolver pressed with convincing force against his side. Straight across the street, to the pier, and up the gangplank we walked to the deck of the steamer. There we stopped to confront as bewildered a gang of seafaring ruffians as it has ever been my fortune to behold.

"Order her up," I whispered, and the revolver forced its way still farther into the folds of his coat.

On the face he turned to me was written all the black evil of the man. "You," he began, but the steel was jammed against his side and he was silent.

"Order her up." I repeated. "And before I count five. One—two—three—"

"Bring the *signorina* on deck." The voice was thin and broken, like the ring of cracked crockery. It was a different man that David and I held between us from the suave, self-confident host who had entertained us at luncheon that morning.

Changed though he was, the man's power was still unbroken. At the order, one of the least ruffianly of the crew before us disappeared in the companion-way; the others remained staring at us in undisguised astonishment.

They could not see the revolver, they did not know who we were, and they must long since have grown accustomed to the unexpected; but certainly they had been prepared for no such scene as this. Standing by the other side of Rocca, David took advantage of the pause to slip his hand unobtrusively into the scoundrel's pocket. He drew out a bundle of papers and stuffed them into his

own coat. Then we stood, motionless, waiting.

She came at last. At sight of the frail face, even whiter now and more drawn than when it had first glorified the chill desolation of Washington Square, the revolver in my hand shook. It was Rocca who had done this, and his life was mine, to take or give. I sometimes wonder how it was that my finger lay quiet on the trigger.

For a second she stood bewildered at the change of scene; then, catching sight of the four men who watched her, she sprang back:

"No, no!" And her hands were flung out as though to blot us from her sight. "Not you again!"

The cry struck into my heart. In the joy of battle, for her sake I had forgotten that it was as Rocca's friend she had last seen me, that it was as Rocca's friend she now saw me standing by his side on the deck of his steamer. Even with death before his eyes, the keen Italian grasped something of the situation. The mud-bespattered visage he turned to me bore a hideous leer.

"You see your welcome," he jeered, but the next instant his face blanched at the sudden stab of the revolver. It was not now as it had been in Eleventh Street. I must play the brute a minute longer; then the nightmare would be at an end.

"Come here," I cried out harshly to the girl. "Come here, or Pietro dies!"

Her hands dropped, and she stared at me with wide, terror-stricken eyes. She could not reason that it was an empty threat. Horror had been heaped too heavily upon her for her to question new disaster.

Slowly, reluctantly, as though drawn by an irresistible magnet, she crept across the deck. Nearer and nearer she came, until my breath stopped in the suspense of the final moment.

My eye measured the distance; she was within my reach. The revolver was still against Rocca's side, when my left arm shot out and grasped her.

"Move, and you're dead, Rocca!"

My shout of triumph rang through the night as I sprang backward toward the gangplank, Maria Bigontina within the circle of my arm. The wavering aim of my weapon mattered nothing; planted

like a rock before us stood David Marshfield, his leveled revolver steady in front of him.

How we staggered down that gangplank I do not know—nor did I ever know. Only I remember that, as I stood upon the dock, I saw David backing slowly down, and the light from the lamps of the deck shone upon the steel in his hand.

From the darkness of the alley behind us came the shrill whistle of a police signal, the sound of running men, and the roar of Inspector McCormick's command: "On the steamer, men! They're on the steamer!"

Then chaos was let loose. Above the inferno of Italian shouts and oaths rose Rocca's order: "Down with that gangplank! Cast off! Full speed ahead!"

The gangplank crashed down by our feet, the end of a heavy hawser splashed into the water; the steamer had started on her way to Sicily and safety. But, while only a foot or two separated her from the dock, the figure of a slender man shot abruptly into the center of the ring about Rocca. The light fell full upon his face, and we saw that it was Ghedina.

"Who are you," he screamed, "to give us orders? Clumsy fool! You betray us but once!"

He flung himself straight at his defeated chief. There was the flash of steel and the dark form of a man falling. The police found Rocca afterward—flat on his back on the deck of his fruit-steamer, his unseeing eyes turned up to the stars, a knife thrust downward through his throat, under the protruding, sensual jaw.

So die many of the chiefs of the Mafia, I am told. Unquestioned despots while they reign, death is the penalty they pay for failure.

Ghedina's triumph was short-lived. While we stood aghast at the tragedy before the Cavour could gather way, a police-boat dashed out from the shadows of the neighboring pier. There was a sharp command, the crack of a pistol, and then we saw men swarming over the low sides of the fruiter. Old Peter Marshfield had fought with his head to good purpose.

The pier was filled with policemen now, but I did not notice them. A hand fell on my shoulder, and I turned to find him panting beside me.

"Thank Heaven!" I gasped. "You're safe!" But not even to shake hands with him would I release my arms from the prize they clutched so fiercely.

"Safe! Of course I'm safe. They grabbed the papers and gagged me—that's what I expected. You got her, I see; and now I suppose you will think yourself happy."

"I suppose so—I—you—I want to thank—" The silly words stuck in my throat as I looked from the gray-haired banker who had wrought this miracle into eyes that glowed up at me from a white face. "Will I?" I asked abruptly.

For a second my eyes held hers, blazing with a light I could not read. She did not answer the question; instead, she lay quiet and inert upon the arm that pressed her to me. She had offered no resistance as I carried her down the gang-plank; she offered none now; but the fire flaming in her dark eyes burned its way into my soul and seemed to lay it bare before her.

"Will I?" I asked again, for still she had not answered.

"What do you want?" she breathed. "Why have you done it?"

"Want!" My voice rang through the noise-filled pier, above the commands of policemen and the shouts of excited, angry men. "Want! I want you—and I have you now."

With a fierce instinct of protection, my arm tightened about her; but this time she did not yield. Her slender hands pushed hard against my breast, all her helpless strength fought me, and for very shame my arm dropped to my side. I could fight for her—I could not fight against her.

She fell away from me, her gaze roaming without comprehension over the sudden tumult. The pier was thronged with shouting men; between the dock and the steamer was open water; on the deck of the Cavour the clubs of the men from the police-launch were making short work of the crew demoralized by the death of their master and the mu-

tiny of his lieutenant. We had won, and she was free—but she knew nothing of it.

Suddenly she drew herself erect in tense courage. She could not reach the steamer—one glance had told her that. She was a prisoner in my hands, and she faced me fearlessly.

"You betrayed me to Rocca. Now you have taken me from him, and you have killed my brother."

The blank wonder in the voice was that of one who has outlived hope. In that loud chaos of battle and victory she stood alone and undaunted, facing the end.

"Your brother is safe with Mrs. Noyes. I never betrayed you!"

I did not recognize the words as my own—I hardly knew that I had spoken. In my head was the conviction that it was all a dream, that some time we would awake and I would find her sitting before the fire as she had sat that first afternoon.

"My brother, Pietro! He is safe!" The cry brought me sharply to myself. "But it is impossible."

"*Signorina*, your brother is in the house from which you fled. In half an hour you will be with him and free."

She stood motionless upon the dock, her eyes searching mine; and slowly I saw a new glory arise from their depths.

"I almost believe you," she murmured. "And, oh, if I could!"

One step forward and my arms were about her. "He is safe," I breathed in her ear, and then with the blessed awakening Marshfield's last words came to me. "Am I to be happy?" I asked.

The long black lashes closed softly down upon her cheek. "I do not understand it all," whispered Maria Bigontina, "but I know that I am very happy. I do not think I ever quite believed it."

For the second time that evening the heavy hand of Peter Marshfield fell on my shoulder. The banker was still standing by my side; but he was not looking at us, and his eyes blinked strangely when he turned them at last from the lights in the sky-scrapers of Manhattan.

"If you are going to marry her, Pa-
get," he muttered gruffly, "you'll manage her property. How much will you take for that Abyssinian stuff?"

(The end.)

ON THE EDITORIAL CARPET.

Side-Talks With the Man Who Sits in the Cab of
the Magazine and Is Commonly Called an Editor.

JUST completed our March time-card. Therefore, we feel that we can load our think-tank with pride, lay back, light the pipe and chew the fat like a bake-head who has spent half his life on an old wood-burner.

But any motive-power that can pull along a train of a few hundred thousand cars, such as we pull every month, isn't much like the woodburners we remember.

We hold all long-distance and tonnage records, and the length of time we keep out of the repair shops would, we think, delight the heart of any master mechanic.

But one thing we must say—it isn't any cinch. We do it because we are always overhauling and oiling and cleaning and adjusting, and because we use nothing but the finest oil and the best fuel. Might as well quit cold as try to make a limited schedule on lignite or some kind of grease that looks like molasses and smells like a hot box long neglected.

We have just given this February number the high ball and sent it on its way. If any of the crew deserves a brownie, the captain who sits back here and does the heavy thinking wants to know about it—and as quickly as possible. And its up to you, boys.

We want particularly to assure you on these points this month, because three of our splendid serials come to an end in this number.

Maybe you think we talk like a pinhead who has just been made private secretary to the G. P. A. If so, call us down.

In March we shall start on the trans-continental run a railroad novel, "Without Lights." It is the story of a young railroad man's fight in the dark and it is hot everywhere except at the journals. It's author is J. Aubrey Tyson.

To take the place of another serial, and by way of a little variety, we are going to run a complete long story about a bear fight in a Western railroad town. It is by C. W. Beels, and it is full of the stuff that makes your mental rails curl up.

In the matter of short fiction we have not closed the throttle a notch over the Febru-

ary speed, and this we consider one of the fastest fiction numbers we have sent out.

We have not neglected humor, as you will admit between laughs when you read "The Man from Texas," by James Francis Dwyer, and "The Rebate," by Frank Packard, but we have four tense, dramatic stories—one by Robert Fulkerson Hoffman, one by Harry Bedwell, and the others are by new writers—Robert T. Creel and Earl C. Wight.

"Riding the Rail from Coast to Coast" slides onto its last rail length next month and comes to a stop. We dislike to state that the board is placed against this bully series, but we have another series by Mr. Willets ready to couple onto the train of his popularity, which will haul it over the steel at the same old gait. Look out for it.

A clever new series that we hinted at a month or two ago, "The Evolution of Almost," by Horace Herr will also start out in March. Did you ever see a dog carrying a dinner-pail? That's how proud we are. Almost!

E. L. Bacon will tell how a record-breaking special is put on for a long run when some millionaire suddenly decides that he must cover the ground quickly.

Arno Dosch will tell of the conquest of New York by the Pennsylvania Railroad's new entrance to the metropolis. A big, gripping article told in a big way.

We have one of the niftiest yarns for the True Stories Series you ever read. It is called "Neath the Shade of the Old Water Tank." It's a bully tale, too.

Robert H. Rogers, one of the most interesting writers on railroad subjects that ever steamed into our depot, will have a special on the nerve of the Eagle-Eye.

We think that our Old-Timer Tales are going to hit the boys just right. The second one will tell about the famous run of the Jarratt-Palmer special back in 1876, when most of us youngsters were playing with tin engines tied to strings.

But that isn't all. It's time for us to throw the jolly switch and get on another track.

Our March number will be like the new

4-4-6-2 Santa Fe Mallet-Articulated—all right.

ASLEEP AT THE SWITCH.

SOME time ago a reader asked us to reprint the poem "Asleep at the Switch," and another reader has since asked us for the name of the author. We are indebted to a lady reader for the following copy. The name of the author is George Høey, as we stated in this department in the October number.

The first thing I remember was Carlo tugging away,
With the sleeve of my coat fast in his teeth,
pulling, as much as to say:
"Come, master, awake, and tend to the switch—lives now depend upon you,
"Think of the souls in the coming train,
and the graves you're sending them to.
"Think of the mother, and babe at her breast,
Think of the father and son,
"Think of the lover, and loved one, too,
think of them, doomed every one—
"To fall, as it were, by your very hand, into
your fathomless ditch,
"Murdered by one who should guard them
from harm, who now lies asleep at the
switch."

I sprang up amazed, scarce knew where I stood,
sleep had o'ermastered me so.
I could hear the winds hollowly howling, and
the deep river dashing below;
I could hear the forest leaves rustling, as the
trees by the tempest were fanned,
But what was that noise at a distance? That
I could not understand!
I heard it at first indistinctly, like the rolling
of some muffled drum,
Then nearer and nearer it came to me, and
made my very ears hum;
What is this light that surrounds me and
seems to set fire to my brain?
What whistle's that yelling so shrilly? Oh,
God! I know now—it's the train!

We often stand facing some danger, and
seem to take root to the place;
So I stood with this demon before me, its
heated breath scorching my face;
Its headlight made day of the darkness, and
glared like the eyes of some witch;
The train was almost upon me before I re-
membered the switch.
The switch resisted my efforts, some devil
seemed holding it back;
I sprang to it seizing it wildly, the train dash-
ing fast down the track.
On, on came the fiery-eyed monster, and
shot by my face like a flash!
I swooned to the earth the next moment, and
knew nothing after the crash!

How long I laid there unconscious is im-
possible for me to tell;
My stupor was almost a heaven, my waking
almost a hell.

For I then heard the piteous moaning and
shrieking of husbands and wives,
And I thought of the day we all shrink from,
when I must account for their lives;
Mothers rushed by me like maniacs, their
eyes staring madly and wild;
Fathers, losing their courage, gave way to
their grief like a child;
Children searching for parents, I noticed, as
by me they sped,
And lips that could form naught but "Ma-
ma" were calling for one perhaps dead.

My mind was made up in a second—the river
should hide me away;
When, under the still burning rafters, I sud-
denly noticed there lay
A little white hand—she who owned it was
doubtless an object of love
To one whom her loss would drive frantic,
tho' she guarded him now from above.
I tenderly lifted the rafters and quietly laid
them one side;
How little she thought of her journey when
she left for this last fatal ride;
I lifted the last log from off her, and while
searching for some spark of life,
Turned her little face up in the starlight, and
recognized—Maggie, my wife!

Oh, Lord! Thy scourge is a hard one! At
a blow Thou hast shattered my pride!
My life will be one endless night-time with
Maggie away from my side;
How often we've sat down and pictured the
scenes in our long happy life;
How I'd strive through all my lifetime to
build up a home for my wife.
How people would envy us always in our
cozy and neat little nest,
When I would do all of the labor and Maggie
should all the day rest;
How one of God's blessings might cheer us
when some day I perhaps should be
rich—
But all of my dreams have been shattered
while I lay there asleep at the switch.

I fancied I stood on my trial; the jury and
judge I could see,
And every eye in the court-room was stead-
fastly fixed upon me;
And fingers were pointed in scorn, till I felt
my face blushing blood-red,
And the next thing I heard were the words,
"Hung by the neck—until dead."

Then I felt myself pulled once again, and my
hand caught tight hold of a dress,
And I heard "What's the matter, dear Jim?
You've had a bad nightmare, I guess,"
And there stood Maggie, my wife, with never
a scar from the ditch—
I'd been taking a nap in my bed, and had not
been asleep at the switch.

BOUQUETS.

WHILE we heartily believe in that good
American motto, "Every knock is a
boost," we regret this month that we have

no knocks from our readers to liven up this little part of The Carpet. They are all bouquets, and they are pretty fragrant to us. Here are what some of the boys say:

H. STILLSON, DURHAM, CONCORD, CALIFORNIA.—I have intended writing you for some time to express my appreciation of the value of THE RAILROAD MAN'S MAGAZINE. I have been a reader since your first issue, and always watch the news-stands impatiently for its appearance.

C. L. BAXTER, CLEVELAND, OHIO.—Though I am not a railroad man, I like your magazine very much, and get it regularly from the news-stands.

J. P. SMITH, READING, PENNSYLVANIA.—I have been a constant reader of THE RAILROAD MAN'S MAGAZINE, for more than two years. It is the best and most classy magazine ever published, and contains everything of interest to railroad men. Being a telegraph operator, I find it very interesting while on duty at night.

B. C. PARKER, COLTON, CALIFORNIA.—I have never missed a copy of your magazine since it came out, and if it continues as interesting in the future as in the past, I never will.

C. L. MILLER, TAMPA, FLORIDA.—I think THE RAILROAD MAN'S MAGAZINE is nearly perfect and improves with each issue.

P. S. MEACHAM, DULUTH, MINNESOTA.—My sister and I had a scrap about THE RAILROAD MAN'S MAGAZINE this month, and the little kids cry every time we take it away from them. It is the one magazine that cannot be kicked, and the person who makes a kick about it must have a severe attack of brainstorm. The tonnage it carries is up to the standard.

GEORGE F. BABB, SHREVEPORT, LOUISIANA.—While I am not expert at throwing bouquets, I think we should "toss a few buds" to "Ye Editor," when we have received so many from him. I have been a regular reader of THE RAILROAD MAN'S MAGAZINE from the first issue, and I can say that it has filled a long-looked-for link in railroad literature.

While I have not guided a hog for over eight years, I sure do appreciate THE RAILROAD MAN'S MAGAZINE, for it is railroad from cover to cover.

While some one-sided readers occasionally "set your packing out" for you, I surely get the worth of my money. While it may not be as good as the one-sided reader could do, it is better than I could do, so I get even by sitting up late to read my copy.

Let the good work go on. I remain a satisfied reader of THE RAILROAD MAN'S MAGAZINE.

F. H. CHILDS, MELROSE, NEW MEXICO.—I have been reading your magazine for the last three years. I think it is chock-full of

human nature. The contents of each number are like what the Irishman said about the whisky, "It is all good and some better."

BERT SMITH, TOMBSTONE, ARIZONA.—I am a constant reader of your magazine, and think it the best.

PERCY NEISTER, RICHMOND, VIRGINIA.—Been a constant reader of your magazine, and now let me register a kick. I want it every week—or twice a month, anyhow—as once per is so long to wait. May your magazine run for many more years to come. Don't try to improve it any more, as it is O. K. Just give it to us oftener.



HAULING NITROGLYCERIN.

HERE is an interesting and important letter from a man who evidently is in a position to know just what he is talking about. If, as he suggests, any of our readers want his assistance to further his idea, we will be pleased to furnish his name and address on application:

EDITOR THE RAILROAD MAN'S MAGAZINE:

I have been engaged in the manufacturing and shooting of nitroglycerin for oil-well purposes for a number of years, so I do not expect recognition from your very popular railroaders, except where human life and property are at stake.

Now I have been a very eager patron at the news-stands on the tenth of every month for a year and a half to get THE RAILROAD MAN'S MAGAZINE, as I consider it the most interesting publication ever put out. In your December number I find an article entitled, "The Dynamite Division," by D. A. Stovall, and it recalls a good many similar cases that have happened in the Eastern States, some of which have been mentioned by writers in your magazine.

As I am a great lover of fair play, I believe those train crews have enough risks to take without having to handle cars of dynamite packed as they are. There are plenty of men in their line who would be willing to show up the cause of these explosions, but who hold back with the fear of being known as a "butter-in."

Now, if facts will be the means of stopping this useless slaughtering of innocent lives, I am willing to accept the above title, and more if need be.

The only cause for those explosions is seepage of the nitroglycerin from the absorbent, caused by too warm a temperature being kept in the car, or by the carelessness of the employees of powder companies in not getting the nitroglycerin equally distributed with the absorbent, or by the compression of the sticks; forcing or squeezing out the glycerin, which comes in contact with the *nail-heads* on the boxes or any other iron plates or bolt-heads on the inside of the box cars.

This seepage can be stopped by placing light tin pans on the inside of each case of dynamite, and which should have a depth of at least one-third that of the case. This precaution will hold the seepage from coming in contact with hard substances. The top of each case should be plainly marked "This Side Up."

Having taken into consideration that sometimes these cases are smashed open and even the car upset, the danger is almost entirely eliminated by the glycerin being in its proper place at the *time of the shock*. The railway companies or the government could make the demand for this precaution and get it.

I do not care for notoriety, but if any of your boys should become interested in this and wish a detailed description of the nature of this explosive, they may get my address through you and write me. Personally, I assure them that I will do all in my power to help their cause. X. Y.

MORE VERSE FROM ATLANTA.

JAMES A. CROWELL, the railroad bard of Atlanta, author of "Oh, You Ham" (First Section), is again in our midst—as the real country editor would say. He contributes one more heart-touching poem to the Carpet, a gentle tribute and plaintive pæan to that much-written, much-mooted person, the poor old bo.

CONTENTED.

Up on the top, 'mid the sleët and snow,
Of an east-bound freight lay a poor old bo.
His legs were numb, his clothes were old,
And he could hardly keep his hold.
He thought about the birds and bees,
And back beneath the maple trees,
When he sat with Katie by the brook—
The sunshine glowed in every nook.
He called her "Pet," she called him "Dear,"
And they were married in a year.
The biscuits that his Katie made
He thought of, too, as there he laid
Upon the train, so wan and bare,
And then thanked Heaven that he was there.

ANOTHER OLD-TIMER.

OUR good friend, E. F. Jackson, sends us a pleasant letter from his home in Florence, Minnesota, in which he refers to William G. King, an old-timer, mentioned in our December number. Mr. King began by braking on the Northern Central out of Baltimore in 1869.

"I can go him six years better," writes Mr. Jackson, "having commenced as a messenger boy in 1863 at Appleton, Wisconsin. I have worn the railroad harness ever since,

filling positions as messenger, operator, station-agent, track-despatcher and chief despatcher.

"When I commenced, a sound operator was a rarity. We all worked the old register. The engines were wood burners, with the old petticoat smoke-stacks keyed on eccentrics, and slipping out of place. In some places the track was made of 4x4 wood with strap iron and snake heads. Twelve to fourteen cars was a big train, and a 20,000-capacity car was 'a large one.'"

Now, who can go farther back than Brother Jackson?

BALLADS IN DEMAND.

A DISTINCTIVE thing about railroad-ing, a distinction which it does not share with any other business on land, but in which it resembles the free life of the seafarer, is the way the day's work and the day's play lends itself to song. There are, considering the comparatively short time that railroads have occupied the attention of poets and singers, perhaps more songs dealing with the rail than there are dealing with the sea.

This department has proved that there is an unending demand for railroad songs, and that there is an unending supply of them. One friend has written asking that some reader will supply the song, "The Train That Never Rolled In." It begins:

I was speeding on the train
That would bring me back again
To the girl I loved in Sunny Tennessee.

Another reader would like to be supplied with the words of "Life is Like a Mountain Railroad." We also have a request for a song which begins,

On a Sunday morning it began to rain,
Around a mountain came a passenger-train.

Still another reader has asked us for a poem written by a brakeman who was discharged from the Southern Railway at Knoxville, Tennessee, several years ago. It begins:

Tell me not in box-car numbers
Life is but an empty dream.

Two bold gentlemen with weird tastes inform us that they have long been looking for songs entitled respectively, "The Hell-Bound Train," and "When Billy Higgins Used to Wiggle His Ears." If anybody has seen any of these ballads in the course of

his wanderings, and can remember enough of them to make readable lines when set down on paper, we shall be glad if he will take his stub of pencil and a scrap of paper and send them on.

THE IDENTITY OF DUGAN.

DUGAN has owned up. We labored with him long before he would confess in public. He pleaded modesty, shame, poor relations, and the police—but, as we pointed out to him, what is sorrow compared with the applause of posterity?

He decided to take the applause and can the sorrow, comforting himself with the hope that perhaps somebody who owed him money, seeing that he was reduced to writing for a living, would repent and send him a remittance.

With this frank explanation, we beg to announce that, in future, the author of the jolly Dugan stories will leave the euphonious shelter of his *nom de plume*, "E. Florence," and come out under his real name—Augustus Wittfeld. He is too good a storyteller to remain unknown.

If you will turn to the story, "Dugan's Pal Goes Dippy," in this number, you will see that we speak the truth. In the letter he sent us admitting his identity, he says:

There are Dugans at work on every road—
Dugans with yarns worth while;
And I trust that the Dugan I write about
Will cause the many to smile.

His mission on earth is a mission of fun,
May he never be known as a bore,
For his object in life is to make *two* grow
Where only *one* smile grew before.

CARPETED AGAIN!

EDITOR, THE RAILROAD MAN'S MAGAZINE:

I NOTICED in the December number of THE RAILROAD MAN'S MAGAZINE, in an article entitled "Making the Lightning Hustle," that the average speed of an operator is nine words a minute.

I greatly differ with you on this subject. I am an operator myself, and would consider nine words to the minute very slow for the average telegraph operator.

Most any ham can copy twenty words with ease, and a good operator generally takes from thirty-five to forty words to the minute. Surely, this must have been a misprint.

I am a regular reader of THE RAILROAD MAN'S MAGAZINE, and think it simply great. I am not a subscriber, but always get a copy of it each month.

I may be mistaken in my charges, but I know a great many operators, and am almost positive that nine words a minute is far below the average. Yours truly,
"RAILROAD HANK."

AS TO OUR MONACHER.

WE have had a great many serious and puzzling problems put up to us at various times, but here is one that taxes our gray matter so that the gage is way beyond the limit.

A reader, who evidently has better intentions, wants to know why we write Young Men's Christian Association and THE RAILROAD MAN'S MAGAZINE. In our editorial capacity we have done most everything, from telling a tallow-pot how to propose to solving the modulus of elasticity in steel springs. We have forgotten a good deal about grammar, especially that part which relates to the construction of plurals and possessives and such things.

So far as we know—*men's* or *man's*—it is simply a matter of choice. We could have called it The Railroad *Men's* Magazine had we wanted to; but it is our belief that a great many noted authorities, such as Goold-Brown and Edgar Allan Poe, always held that the singular was the most forcible and effective.

However, as living examples, we refer to our esteemed sisters, *The Ladies' Home Journal* and the *Woman's Home Companion*.

OH, YOU HAM! (Second Section.)

THE ham is the most popular man on a railroad—not. In the December number we published a fine poetic tribute to this most expert of ear-pounders, written by Mr. James A. Crowell. That poem met with approval. It inspired the muse of another gentleman, Mr. E. Logsdon, of Shawnee, Oklahoma, who evidently has bitter proof that the only thing a ham can hit is the hay—except when he is hitting the pike looking for another job. The result of the inspiration was Section Two of the ham sandwich, which runs along thusly:

This ham he got another job
On the grand old B. & O.,
And the way that he OS'd the trains
Was something fierce to know.

But as the night passed onward,
From midnight unto dawn,
This ham got very sleepy
And soon began to yawn.

And soon 'twas dear old Slumberland,
That he had drifted to,
And how he dreamed, and dreamed, and
dreamed
From twelve midnight till two.

He thought he'd been promoted,
In an awfully short time,
And now he was despatching
On the B. & O.'s main line.

He dreamed that he'd been boosted
In another, shorter time.
And now he was superintendent
Of the B. & O.'s main line.

And so he still lay dreaming
As the fast express pulled in.
The despatcher he was calling—
Calling that ham like sin.

Still he dreamed that he was standing
Midst a mighty throng of men,
And a big white-headed gent said,
"I guess we'll promote you again."

And just as they were drinking
To the health of this king-pin,
Old Humpy, boomer brakeman,
Poked him hard upon the chin.

He awoke in awful panic,
And he looked around with fright,
And he heard the C. D. calling
With all his main and might.

Our poor ham is now a looking
For a job—I know you'll weep—
But I think he'll soon be G. M.
Of that good old railroad, Sleep.



THEIR WOES IN VERSE.

OH, ye Casting Buffer! Shades of ye
Main Crank Pin! Hail! Glorious
Injector Steam-Valve—and all the other
Muses! But the manner in which every
railroad man, from captain to end-shack, is
breaking into poetry is enough to make any
man in an editorial cab yell for the binders.

Just as we were drawing the fires and
locking the old steamer up for the night,
just as we were picking up our dinner-
pail and starting home, along came a bunch
of letters from the boys, telling us about
their troubles, and—Holy Headlamp!—tell-
ing them in verse.

We began reading them. We wish we
might print them all, but we have only space
for one here on the last page. The author
is W. C. Deuel, of Birmingham, Alabama.
He says:

"They started us out the other A.M.,
with a little old engine, leaking and in very
poor condition to tackle the day ahead of us.
We were disgusted when she came to the
cab-track.

"The engineer, the brakeman, the fireman
and myself gave voice to some of the state-

ments in the following verses, in which the
meter changes without notice and the rime,
at will, but they express our opinion of the
machine we had to do business with that day.

"Your November number eulogizes the
"Tallow-pot," in a well-written piece of poet-
ry. The engineer suggested I write up the
113 and send the result to you. So this crime
is as much on him as on any one else, and
we know you will picture that deal we were
up against that day, as probably your experi-
ence has thrown you in a like dilemma.

We respectfully submit our 113 to you:

THE 113.

"What engine have you?" the operator
asked,

As we rolled into C. S.

"My boy, you must have been in the hay,
Or you'd have heard N. B. O. S."

"The engine we have is a la-la, my lad,
She's the pride of the hills and dales,
But the poor old girl has seen better nights,
And weathered many hard north gales."

They built her 'way back "befo' de war,"

She has served them faithfully, too!

The men that have run her and filled her
with coal,

Would number far more than a few.

I recall the day, in my box career

When she was mentioned as "big."

She was a real consolidator—

Sometimes, we called her, a "pig."

But that day has floated into the past

And will come this way no more,*

Engines like her are now counted out,

With a tag for the beautiful shore.

She'll pull her tonnage down any old hill

And pop like a fiend 'gainst her blower.

She o'ertook a snail—'twas dead, they aver,

So say the "Old Heads," that know 'er.

She bucks like a broncho, kicks like a mule;

The head brake won't stay inside her.

I never saw anything quite so tough

As this flat-wheeled Rough Rider!

Baldwin built her and a bald one she is.

Likewise a Tartar, a pippin—

She'll delay the game pulling a sand-pit;

If she ain't blowin' up, she's slippin'.

She is so antiquated and useless now

That whenever I discuss her,

Well, I accent that last syllable

So hard that it ought to bust her.

But enough of this airy, fairy talk,

I've got her and I've got to go

Over, and benevolently assimilate

The coke ovens at D. O.

Tell that third "X" to fix 'er,

Give us a green "19,"

And may some enemy of mine

Catch the little old "113!"

*An extract from Hep, Hep Laws!

The greatest home charm

Make your home-coming as late as you please from party, ball, or theatre and you will find your boudoir or bed-chamber delightfully warm and "comfy" to talk things over with your guest if the home is Steam or Hot-Water heated and ventilated by

AMERICAN & IDEAL
RADIATORS & BOILERS



Common hospitality demands a warm home.

Heart confidences—"the pearls of friendship"—are born only where there is warmth and coziness. IDEAL Boilers and AMERICAN Radiators help so greatly to give a home its greatest charm—perfect freedom day and night to enjoy every nook and corner of it, no matter how blizzardy the weather. IDEAL Boilers circulate their soft warmth for hours after the fire in the boiler has been banked for the night, and the house is kept cozy for the rising time and breakfast hour on the single charge of coal put in the evening before.

ADVANTAGE 10: Burning coal liberates certain gases which burn readily and make intense heat if permitted to "take fire." The chambers (and the flues opening

out of these spaces) are so arranged in IDEAL Boilers that they bring in the exact amount of air required for completely burning these gases as fast as freed from the coal. There can be no "undigested" coal—every ounce of fuel is made to yield its utmost heat—none of its heat-making power is wasted up the chimney.

Don't delay investigating this well-paying permanent investment with its marked fuel, labor, and repair savings, besides the greater comfort, health protection, cleanliness, safety, and durability. *Prices are now most favorable.*

The booklet "Ideal Heating Investments" is the biggest thing in money-saving facts that any property-owner can read. Free. Send for it NOW.



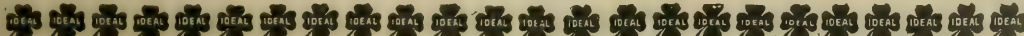
A No. 1-22-W IDEAL Boiler and 422 ft. of 3/8-in. AMERICAN Radiators, costing the owner \$195, were used to Hot-Water heat this cottage.

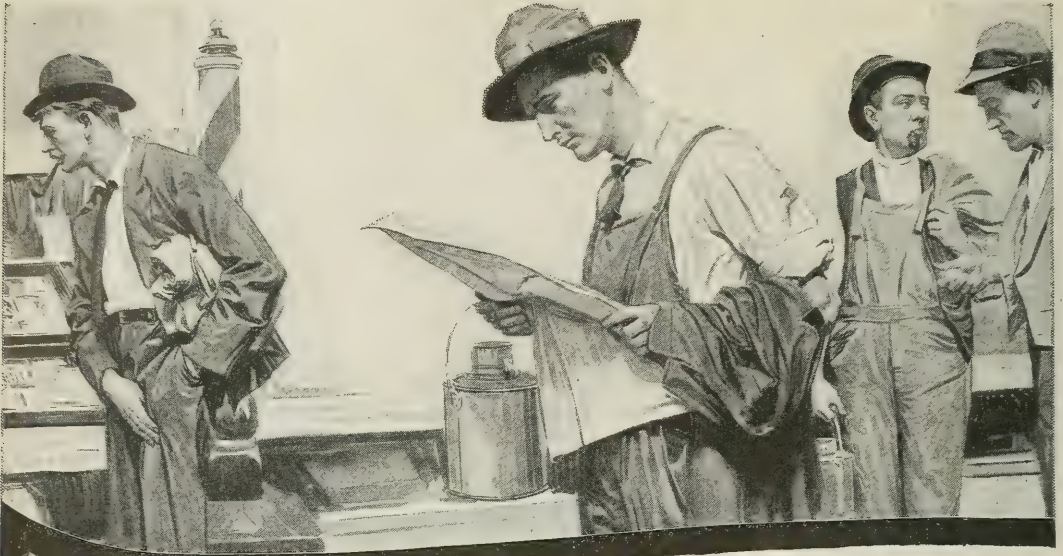
At this price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other conditions.

Public Showrooms
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Write Dept. J
Chicago





Are YOU Condemned to

What is life going to mean to you? Is it going to mean comfort and prosperity, or is lack of training going to condemn you to hard labor for the rest of your days?

You are facing a serious problem — one that affords absolutely no compromise. To *earn enough* to command the *comforts* of life you must have *special training*, or else be content to fall in line with the huge army of the untrained, the poorly-paid, the dissatisfied, the *crowd in the rut*.

For *you*, there *is* a way to success—a true way—an easy way—a short way. Are you willing to have the International Correspondence Schools of Scranton *make you an expert in your chosen line of work*, in your spare time, and without your

The Coupon Means

When I was sixteen years of age I purchased a Course in Interior Wiring. At that time I was an apprentice at the plumber's trade, getting a small salary.

When I reached the age of seventeen years I started in the business myself as an Electrical Contractor. To-day I am not quite eighteen years of age, with an increased income of \$3.10 per day *over* what I received when I enrolled.

I owe all my progress to the International Correspondence Schools.

WILLIAM G. METTIN,
P. O. Box 49, South River, N. J.

I have increased my salary 50 per cent. I had no experience in Window Trimming before enrolling in the I. C. S. Shortly after enrolling I got a position with Reid & Congers, largest department store in Clinton, Iowa, as Trimmer. I held the position with said firm for 14 months and then got a better position with T. R. Glanville & Son, Mason City, Iowa, with an increase in salary of 40 per cent.

JOHN AHRENHOLZ, Jr.
Mason City, Iowa

At the age of sixteen, while employed by a doctor as driver, I enrolled in the Electric Lighting and Railways Course of the I. C. S. After a year's study, in which I nearly completed my course, I secured a position through my application by mail in the power house of the Ottumwa Ry. & Lt. Co., of Ottumwa, Iowa. At the age of nineteen I was promoted to Operating Engineer, which position I have held for the last two years.

W. A. FULLGRAF,
1024 W. Second St., Ottumwa, Iowa

When I landed in this country on the 5th day of December, 1903, I did not know a word of the English language, and consequently was forced by circumstances to hard work for \$10 a month.

About three years later I heard about the I. C. S., and the same day, in June, 1907, I enrolled with you for the short Coal Mining Course, and in May last I received my Diploma.

Last November I took the complete Coal Mining Course. Recently I successfully passed the examination for mine foreman. Now I am getting \$4 a day and only eight hours work.

PETER STEVENS,
Superior, Wyoming.



Hard Labor for Life ?

having to leave home? *That* is the way. It is the way that meets *your* special case. The *terms* are made to suit *your* means. The *time* is arranged to suit *your* convenience. The *training* is adapted to fill *your* needs. If you are willing, *mark the attached coupon* to learn all about it.

That the I. C. S. can help you is shown by the 300 or so letters received every month from successful students who **VOLUNTARILY** report *better positions and salaries as the direct result of I. C. S. Help*. During November the number was 375. Mark the coupon.

Next month, next week, tomorrow, *even an hour hence* may be too late. Mark the coupon *now* and so take the first step to escape life-long servitude. Marking it entails no obligation—it brings you full information and advice regarding the way to *your* success. **Mark the coupon NOW.**

FREEDOM

I certainly can speak very highly of your Institution, and through its help I have advanced my salary some 300 per cent. I am now with the Wheeler Cond. & Engineering Co. of New York, as Engineer on the road, and give your schools a good deal of the credit, backed up by an apprenticeship with the Providence Engineering Works.

I would be nowhere without the instruction in the Mechanical Drawing connected with my course.

WM. LONSDALE,
97 Arnold Street, Providence, R. I.

At the time of my enrolment I was engaged as helper in a Montreal Machine Shop at \$8.00 per week. Since then I have held many important positions in Canada and U. S. as Chief Engineer and Superintendent with an *8-fold increase in salary*. Am at present General Superintendent, Department of Mines and Minerals, for a large Canadian firm.

My opinion of the Schools is that they supply the only practical way or means of obtaining the necessary technical education for the large class who, like myself, had not the opportunity of obtaining a university education.

JOSEPH BRADLEY,

71 St. Francois-Xavier, Three Rivers, Quebec, Can.

INTERNATIONAL CORRESPONDENCE SCHOOLS, Box 1003 D, SCRANTON, PA.

Please explain, without further obligation on my part how I can qualify for the position before which I have marked X.

General Foreman
R. R. Shop Foreman
R. R. Travelling Eng.
R. R. Trav'g Fireman
Locomotive Engineer
Air-Brake Inspector
Air-Brake Repairman
Mechanical Engineer
Mechanical Draftsman
R. R. Construction Eng.
Surveyor
Civil Engineer

Banking
Electrical Engineer
Machine Designer
Electrician
Mining Engineer
Mine Foreman
Foreman Machinist
Chemist
Assayer
Architect
Bookkeeper
Stenographer
Ad Writer

Name _____

Employed by _____ R. R. _____

Employed as _____

Street and No. _____

City _____ State _____

Three Cheers! It's Really True!

Your Fortune's Waiting. Listen Sharp—Hear the Wonderful News! You Can Now Own a Private Monopoly Easily Worth **\$3,000 to \$10,000 Yearly**

New business, gigantic success, causing great excitement. Mad race for territory. No wonder! Ten people actually get \$32,000.00. Orders! Orders! Orders! Money coming fast; eight out of ten houses buying.

Reader, wake up! See the big opportunity knocking at your door—seize it. Give yourself a mighty boost—quit plodding; change from small earnings and wage slavery to

BIG EARNINGS, WAGE FREEDOM, OWNERSHIP and PRIVATE MONOPOLY

Costs nothing to investigate—very little more to start. Don't ignore the one great opportunity of your career to acquire financial independence. Let us give you a private monopoly worth \$3,000.00 to \$10,000 yearly—the exclusive selling rights in your locality on our quick-selling household invention—THE ALLEN PORTABLE BATH APPARATUS.

See what others are doing—the fortunes being made with a real winner. Sounds too good to be real, yet absolutely true. We prove it by sworn statements, orders, letters—by your investigation.

"Sold \$2,212 worth in two weeks. Not one dissatisfied user," write Korstad and Mercer, farmers of Minnesota. Zimmerman, farmer, Indiana, sees great opportunity—starts—succeeds—sells farm—result:

ORDERS, \$3,856 IN 39 DAYS.

"My sales \$1,686 in 73 days," writes C. D. Rasp, agent of Wisconsin. "Canvassed 60 people—got 55 orders; sold \$320 in 16 days," writes W. H. Reese, carpenter, of Pennsylvania. "Enclosed order for \$115—first day's work. Best thing I ever worked," writes L. H. Langley, liveryman, of North Dakota. "Everybody thinks the apparatus finest thing. Sold 15 one afternoon," writes Miss Eva Edwards of Nevada, after ordering 73. "I averaged \$164.25 weekly for three months; undoubtedly best line on market," writes J. W. Beem of Kansas. "Enclosed order for \$304.50—only three days' work. No trouble to sell. Appeals to everybody," writes J. Strahm, farmer, of Kansas. "I make \$100.00 daily," writes J. Seeger, telegrapher, of New York. "It's great! Lucky I answered your ad. Showed it to 44 people—have 39 orders. Sold 17 one day. Sells on sight," writes A. P. Ledwick, solicitor, of Maine. "Sold 17 one day, send 60 more," writes Weathers of Texas. No wonder J. B. Cashman of Minnesota writes: "A man who can't sell your goods

COULDN'T SELL BREAD IN A FAMINE. Send 48 more."

Readers, there's nothing like it. Not sold in stores. Wonderful, but true, this invention gives any home that long-desired blessing—a modern bathroom for \$6.50. Operates wherever water exists—in any room, any part of a room—no water-works, no plumbing, pipes, tools, valves—not even a screw to insert. Does same work as bathroom costing \$150. Think of the millions waiting for this one thing to happen—and it has happened. Really, could anything be more popular, so near to the irresistible, so easy to sell? Who couldn't Can't you actually see in this



M. G. STONEMAN, a photographer of Nebraska, who has sworn to sales in less than 3 years on partial time total \$15,000. His biggest month was \$1,251.65; biggest day \$151.75 among 300 people. Again sold \$800 worth in eight days. Says: "Best thing ever sold; not one complaint from 2,000 customers."



J. B. HART, a farmer of North Carolina, whose sales for one year total over \$5,000, never sold goods before joining us. Took 16 orders in three hours. He writes: "You can't keep from selling it if properly demonstrated. Appeals to everyone. Never had it condemned by anyone yet."



"See it Energize." Sectional View.

CAUTION: The Allen Portable Bath and Health Apparatus is protected by 4 patents—others pending. No one else can make use or sell a flexible receptacle or receiver under these patents without making themselves liable to prosecution as infringers. Make sure you get the genuine and only practical apparatus by placing your order with us—the originators, sole manufacturers and original patentees. Our registered trade mark appears on every genuine Allen Portable Bath Apparatus. Look for it.

ride to prosperity on such a vehicle?

A FASCINATING, HIGH-GRADE and SURE BIG-PAYING MONOPOLY?

Isn't it just what you've been looking for? Just think! This invention, by a really wonderful yet simple combination of mechanical and liquid forces, gives all the standard hygienic baths for men, women, children—cleansing, friction, massage, shower; altogether or separately, hot or cold. Makes bathing 5-minute operation. Cleanses almost automatically. So energizes water that one gallon does more than tubful old way. Used by U. S. government, famous Battle Creek Sanitarium and hundreds of world-renowned people. 100,000 already sold. Millions needed. See how simple, easy, convenient. To bathe just do this: Place combination metallic fountain and heater on wall or shelf, fill with water, touch a match, turn screw—hit it all. Thereafter it works and energizes automatically.

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ALLEN MFG. CO., 1706 Allen Bldg., Toledo, Ohio



C. A. MILLER, a minister of Nebraska, who sold and purchased over \$700.00 worth after working but a few days. Never sold goods before, so far as we know.



M. JUELL, a railroad man of Canada, who started on spare time and later excluded everything for the bath business. Not a regular salesman, yet sold about \$6,800 worth in about 18 months.

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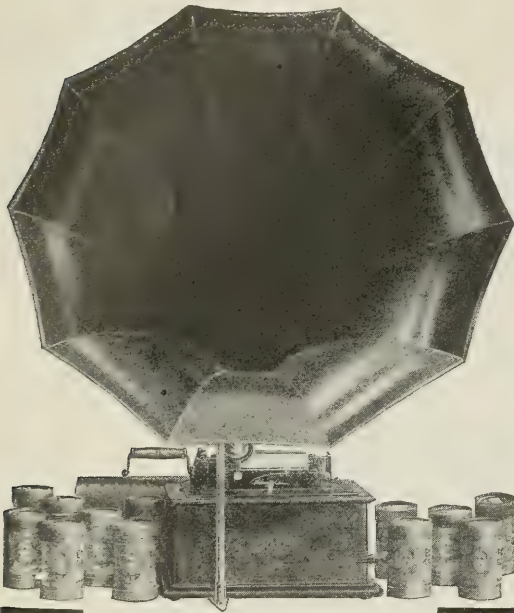
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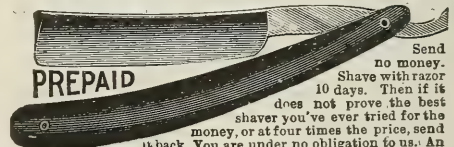
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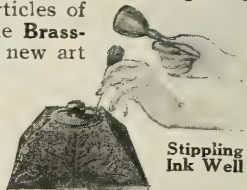
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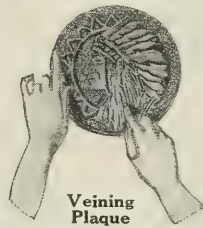
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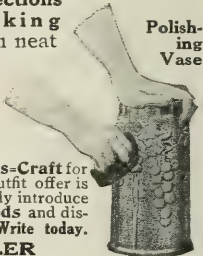
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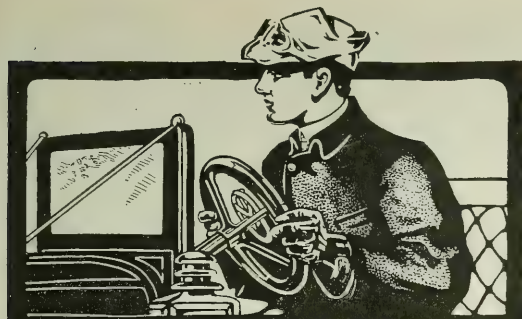
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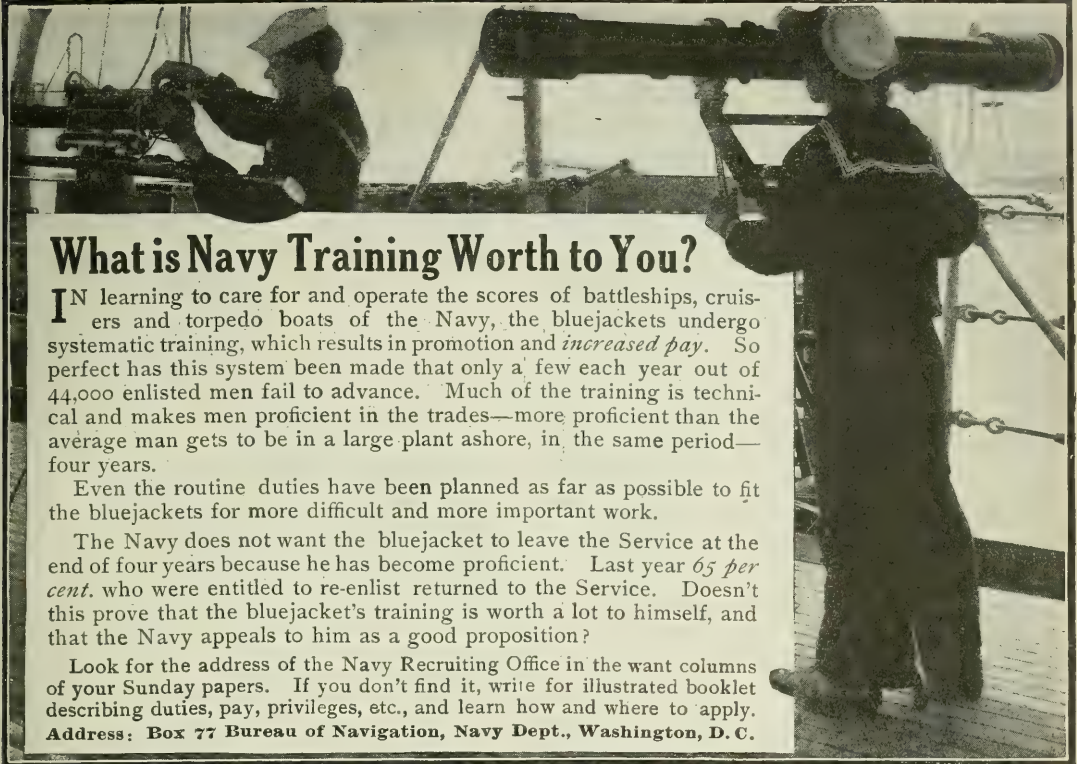
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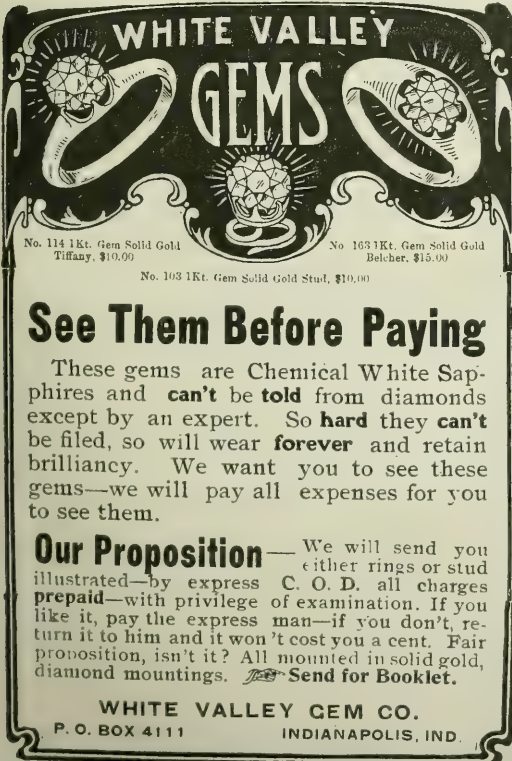
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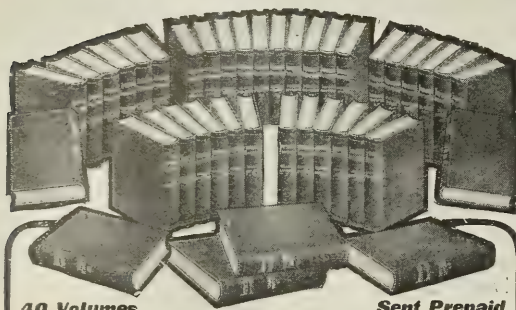
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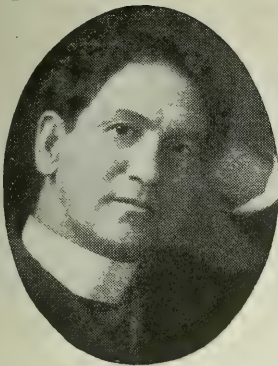
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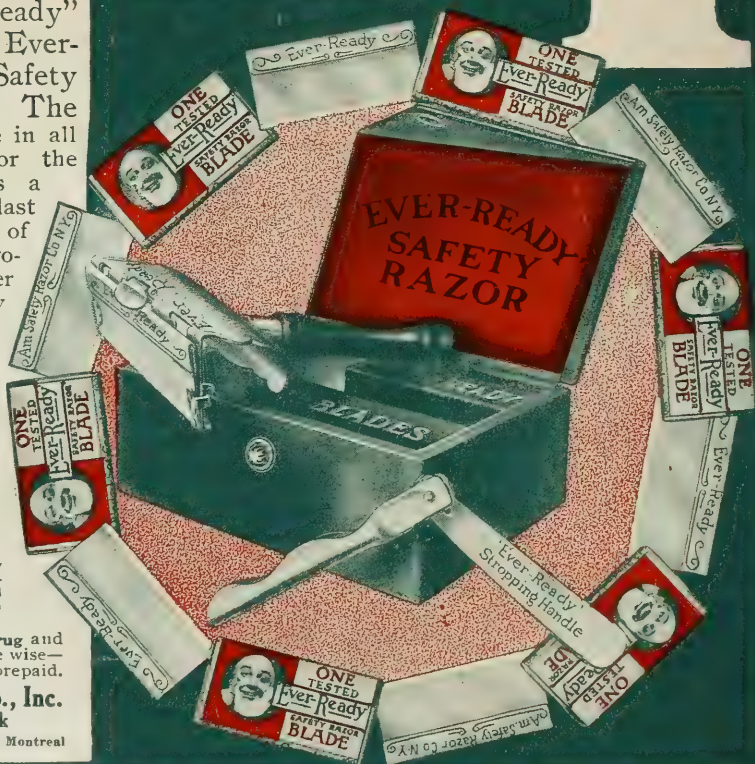
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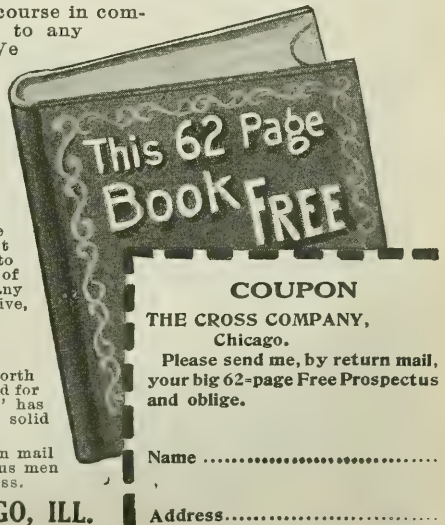
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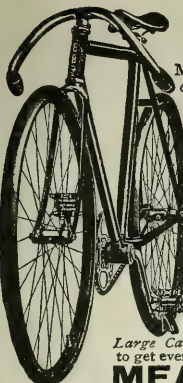
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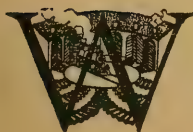
Vol. XI.

MARCH, 1910.

No. 2.

"WATCH FOR WILLETS!"

The Traveling Correspondent of THE RAILROAD MAN'S MAGAZINE Once More Takes the Long Trail, Prospecting for Stories on Main Line and Branch Line, North, East, South, and West. When You See Him Rolling Along the Rails in Your Direction, Put the Arm Against Him and Start in Stovepiping. If You Can Extend a Helping Hand, Mr. Willets Will Appreciate It, the Editor of this Magazine Will Appreciate It, and We Will All Be Happier.



WATCH FOR WILLETS! These three words have come to be perhaps the most important in THE RAILROAD MAN'S MAGAZINE.

"Watch for Willets!" has been the slogan by which the name of this magazine has been carried from coast to coast and from the Lakes to the Gulf.

Willets is off again. He is going to make a bigger circuit than ever, and he is going to do it just as well as ever. This is his fourth annual tour for THE RAILROAD MAN'S MAGAZINE.

The stories that he has unearthed in his previous tours have carried our readers on the tide of enthusiasm. There's a reason. Every story has registered some throb in the life and growth and history of some section of the country.

He Has Grasped the Railroad Spirit.

It is amid surroundings such as these stories have depicted, and by such incidents as have been related in them, that, step by step, the country has been built up. It is these incidents that have transformed barren deserts or luxuriant wilds into prosperous home country, where virile men and gentle women have lived and fought and made laws for themselves.

It is these things which form the real history of our country, and it is these things that Willets has repeatedly gone to find out and has related with all the vividness of an enthusiast. That is the secret; he is an enthusiast.

He has grasped the railroad spirit from the time that General Dodge stretched out the feeble line of what was afterward to become the mighty Union Pacific; and



GILSON WILLETS,

WHO IS MAKING HIS FOURTH ANNUAL VISIT AMONG THE RAILROAD MEN
OF THE UNITED STATES FOR "THE RAILROAD MAN'S MAGAZINE."

when Collis P. Huntington and his associates rushed East to meet him with the Central Pacific, to the time when, as if by a miracle, the Chicago, Milwaukee and St. Paul threw a perfect road across the continent in a two-years' flash.

Mr. Willets has a knack of interpreting all of these phases of railway history, and he has it because he believes in the railroads and in railroad men—because he likes them and they like him. That is why he was restless to be off among them again.

That is why THE RAILROAD MAN'S MAGAZINE has sent him.

By the time this article gets into print, Willets will again be hobnobbing with railroad men. The longest, and in some ways the most important, stretch that he will

strike, over which he has not been before, is the new extension of the Chicago, Milwaukee and St. Paul to the Pacific coast, called the Chicago, Milwaukee and Puget Sound.

We expect this to be one of the most productive stretches of any of Mr. Willets's trips.

Very few people realize the importance of this new line. The country that it opens up is an empire, compared with which many of the kingdoms of Europe are bankrupt and barren. And yet, in spite of the speed with which this wonderful road has been constructed—and in spite of its perfection of road-bed and the ease of its grades—there have been difficulties to encounter.

These Threads of Steel Make History.

The stories of these difficulties are as full of thrills, and have demanded as much courage and vigor, as have many of the spectacular feats of war which go down to posterity as history.

When you read these stories you will realize that the real history-makers of a great country, with its vast untapped wealth, are the slender threads of steel whose course is conceived in the godlike imagination of men who are too large for war; history-makers whose track is laid by the wonderful skill and brilliant daring of men to whom mountains are incentives and not oppositions; who throw their spidery steel bridges across impotent chasms and roaring rivers.

These are the men who are making history, who are writing modern epics—epics essentially American, essentially progressive—and infinitely more vaulting in the daring and ambition of the subject than the childish sword-thrusts of all other epics. It is the desire to grasp this spirit, and to catch here and there a stanza from this wonderful epic, that calls Mr. Willets from his home and people to be a part of this railroad life.

But not only do we deal with these giants of the railway world—these creators and conquerors of vast territories—the switchman, the brakeman, the section-man, the gang foreman, the operator, the engineer, the mail clerk, the shop worker, and the office man—all these come into the net of our story-hungry correspondent. With all these men he has the same bond of sympathy, the same loyalty to the railroad, the same love of railroading; and his admiration for them is as keen as is his admiration for the more brilliant, but not more useful, makers of ways.

His Journey Will Take Him Over the New Roads.

So, in this new country, on the new road by which he is going to travel, these are the men that he is looking for; not for the sake of how many words of space he can get out of them, but because he has been among them before, and he is their friend and they are his friends.

The Puget Sound Railroad is not the only new road over which Mr. Willets will go on his story-hunting career. But more of this later. We will now tell you as nearly as we can the exact course he will pursue on leaving New York.

His first dash will be to Baltimore and Washington. From there he will break away to New Orleans on the Queen and Crescent route; but it will be by no means a direct road.

He will zigzag among old historical roads of the South, where, during the tragic

days of the Civil War, railroad men carried arms in the cab, and were almost as important members of the army as were the soldiers themselves. It is a fact that in many instances in those old days, a civil engineer—usually a railroad man—was of more importance at the moment than the greatest general.

The South teems with these yarns; you will probably know some of them. Watch for Willets!

From New Orleans Mr. Willets will work toward Memphis over the Yazoo and Mississippi Valley, and from there he will take the Missouri Pacific to St. Louis. Leaving St. Louis, he will run over the Chicago and Alton to Kansas City, a section chock-full of railroad yarns practically untouched.

From Kansas City the Rock Island will take him to El Paso; and this stretch, with the additional one from El Paso to Denver over the Santa Fe, provides a field even more unlimited than the St. Louis-Kansas City leg.

From Denver he will push over the Denver and Rio Grande to Salt Lake City, making many stops on the way. At Salt Lake he will strike the first stretch of entirely new railroad, the recently opened Western Pacific, through which he will complete the Western loop to San Francisco.

Leaving San Francisco, he will reach out to Seattle over the Northern Pacific and the Southern Pacific; and from there to Chicago he will come homeward over the new St. Paul extension.

Over Ten Thousand Miles of Track.

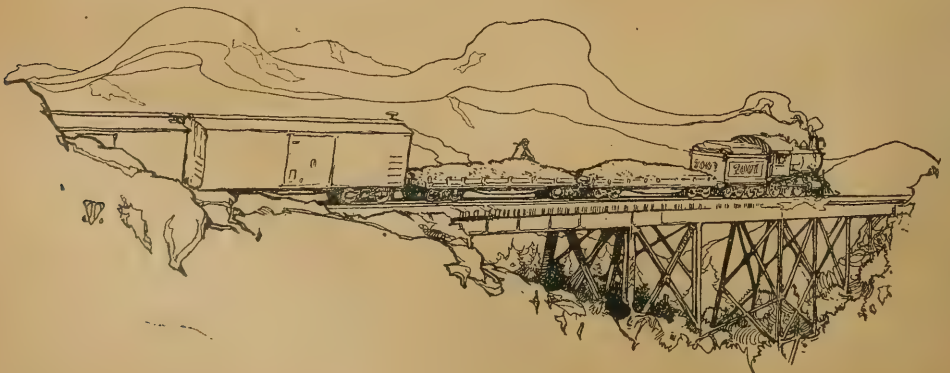
The home trip from Chicago to New York will be made over the Erie Railroad, a road which, perhaps more than any other in the country, abounds in tales of old-timers and in historical interest.

If you take a map and measure up roughly this swing around the Union as we have outlined it, making calculations and allowances for sweeps in and out the circle, you will find that Mr. Willets, when he gets back to New York, will have covered over ten thousand miles of main line. If he is coming your way, you will want to see him. More than that, he will want to see you.

That's a combination that is hard to beat.

You will hear of his approach down the line, because he is welcomed everywhere and by everybody, from section-man to general manager. It is hard to miss him; but, at the same time,

WATCH FOR WILLETS!





The Evolution of "Almost."

BY HORACE HERR.

THIS month we introduce a new character in a new series by Horace Herr, author of "Being a Boomer Brakeman," which was published in our fall and winter numbers.

In nearly every little railroad town there is just such a character as "Almost." He mingles in everything—no matter what it is. He is as ready to fight as he is to laugh. He knows every one, and is a sort of town joke, town guide and town fool combined. But, generally, he has the right stuff in him. Anyhow, here's to "Almost."

1.—THE GENERAL FOREMAN HIRES A CLERK.

There Is a Sudden Addition to the Population of Hulbrook, which
 "Almost" and Maggie Mahorney, the Postmistress,
 Try to Remove.



WHEN I dropped off the varnished cars at Hulbrook, that morning, I didn't know that it was there. In fact, I wasn't sure that anything was there except the box-car station, for the town was so small you needed

an electric headlight and a magnifying glass to locate it.

I believe, according to the last census, there were fourteen people in Hulbrook, but Red Hot Frost told me confidentially that the census man counted two hoboos who had temporary quarters at the water tank, and that the Mexican who took

care of the switch lights was counted twice, once at the east switch and once at the west.

But I got it straight from Maggie Mahorney, who dished out the mail twice a day when there was any, that "onct" there was as many as four families in Hulbrook, counting Jed Latroupe who had a wooden leg and a livery stable.

And There Was It.

I guess Maggie had the real 31 order on the town history all right, because she had a pleasant little way of reading the morning's mail before she delivered it in the afternoon, and every one looked on her as something just as good as an evening newspaper.

But then Maggie wasn't responsible for it. When I dropped off No. 1 that morning, I had the Old Man's signature on a piece of railroad stationery, which advised the general public and other officials of the road, that "Effective this date, William Willard Thomas is made general foreman at Hulbrook, Arizona, vice Timothy O'Moran, resigned."

Of course, having the paper didn't do much good if there was no one around to read it, and as soon as I found myself before the box-car station, I looked about to find some one who would be interested in this bit of documentary evidence.

The station-agent read it and made a noise like a leaky flue. I felt like calking him right there, but I happened to look up and saw it holding up the left hand corner of the station.

"What's that?" I asked.

"What's what?" came back from the agent as he looked in the direction I was pointing.

Almost Any Old Thing.

"That decoration at the corner of the box car." And then a smile, almost the only smile I ever caught lingering about in the vicinity, crept over the agent's face as if it had a slow order.

"Oh, that's Almost."

"Almost what?"

"Almost any old thing. Jist Almost." he replied and flagged down the smile.

I looked at it. It really was almost

anything. It was almost the missing link; almost human, almost nothing.

It must have been born in Kansas during a grasshopper year or a season of mighty drought. It was undersized to begin with, sort of a human narrow-gage, with a face like a rust-colored apple with the rust put on in spots.

Its freckles were almost as conspicuous as its grin which stuck out on its facial premises like a track at a blind siding.

The mouth, to begin with, was cut on the bias and the chin ran off toward Jones's. There was a lot of slack in the joints, just as if the arms and legs were coupled on with links and pins and a fellow kept expecting it to break in two every time it got into motion.

All Right When in Motion.

And that motion. It was on one side with a flat wheel. When Almost first started out, you would have passed him up as a 20-to-1 shot against a field of snails, but when he once had the steam working he was as easy to stop as thirty cars of coal on a forty per cent. grade with wet rails.

But it was interesting just the same. The longer you looked at it the better it got. It was so homely it was good-looking and then that smile! Well, in Hulbrook, Arizona, in that day and age, any old kind of a smile looked like ready money.

If I had known what Hulbrook was I should not have disturbed its sand-colored quietude. But it was down on the time-card in the same size type as the other towns, and most any place with the price of a week's lodging and three squares a day, looked good to me then.

About six months before I was keeping company with a goat down in the U. P. bull-ring in Kansas City, and, being absent-minded by nature, I started the goat out at a nice easy pace, with three peddlers hooked on behind and forgot to shut off until I had hit a visiting official's brass-railed dog-house so hard that the burr-head didn't stop to open the door, but came through the window bringing a bowl of soup and a string of cuss words along with him.

I understand, too, that the stenograph-

er, who happened to be the husband of the official's wife's sister's second maid, or some other close kin, was so frustrated that he put in a full stop instead of a comma, and of course had to write the letter over again, as soon as he got the omelet out of his hair.

For the Great Wide West.

Of course I got mine, and never having been outside the city limits any distance to speak of, I decided to drag it for the great wide west, where dollars grew on trees and promotion came every other day whether you wanted it or not.

Well, when I folded up my service letter and an extra suit of denim pajamas and climbed aboard the rapid wagons, I had never met Almost nor heard of Hulbrook. When I reached Albuquerque, I made a little personal call on the master mechanic, impressed him with the eighteen-carat quality of my ability as an all-around man, and inside an hour had exchanged my line of talk for the paper which made me "General Foreman at Hulbrook."

Where Hulbrook Is.

Of course, the next thing was to find Hulbrook. If it had not been that the rail-

road led one to the town, no one would have ever been able to find the place the second time and no one would have wanted to.

It's about half-way between some place and some place else, and if it ever sprinkled three drops of rain there, every man in the town would start to build an ark, and if every real man in the town had been building an ark the day I arrived there would have been as many as one ark in the course of construction.

Excepting myself, there was the station-agent, and excepting the station-agent there was me, and not counting us both there was a Mexican section hand, Maggie Mahorney, the postmistress, Jed Latroupe, of the Sign of the Wooden Leg, a flock of California fleas, two dogs, and Almost.

Exciting as a Funeral.

Being a general foreman at Hulbrook was almost as exciting as being a pall-bearer. There was a rusty old "Y" traced there, a pit for cleaning ash-pans, a water-tank and a spur track for coal and water cars.

Going west out of Hulbrook, almost every freight had to have a helper. So, a great deal of the time there was a pusher engine which needed attention, and the



"CAN'T SEE WHERE HE'S HAVING MUCH LUCK."

general foreman was supposed to keep a weather eye on the whole works.

The work wasn't considered in the pay-check, for it was worth one hundred dol-

Maggie Mahorney into a siege of nervous prostrations.

About 8.30 that night a pusher engine came in to spend the night on the



I TOLD ALMOST WE HAD DECIDED THAT—
CHIEF CLERK AT FORTY-FIVE—

lars of any man's money to live in the place for a month. Believing that I was earning my money by just hanging around the place, about the second week I decided to hire a chief clerk.

Being chief clerk to the general foreman at Hulbrook demanded a young fellow with a strong back and few brains, and I had about decided that such a youth could not be found in the town, when our little village was rudely broken in upon by a large, red-faced gentleman of uncertain occupation, who came off the blind just a few inches ahead of a flag-man's number tens.

The New Population.

As our new population weighed all of 190 pounds, it made quite a commotion in the community when it alighted. The first shock came about 9 o'clock in the morning, the second shock came twelve hours later, and it almost precipitated

pit track, and I walked down to look her over and show the crew that the general foreman was always on the job.

Into the Trouble.

Both the eagle-eye and fire-boy were going over to Jed Latroupe's livery stable to spend the night, and I was strolling up the plaza de sandorino toward the box-car station, where I had taken temporary lodging, when I heard a scream which sounded like it came from the post-office about fifty yards away.

I speeded up a little, pulled alongside, then decided that the occasion demanded that I go inside. As the door was locked I had to be a-bit rude, but when it flew open with a crash, the light from my lantern was most welcome to both myself and the rest of them. They were as badly mixed up as two Baldwins after a head-on collision.

Over in a far corner near the door

which led from the post-office to the 'dobe room where Maggie Mahorney lived, was Maggie herself. In one hand she held a lamp which had been blown out, and in

men came to their feet and, for a moment, I thought I would have to take a hand in an ungentlemanly affair.

I never did think a great deal of fighting. I always had a funny way of getting my face into the other fellow's fist, so that win or lose I generally came out looking like a human porous plaster; and just so long as both men were on their feet, I did not care to interfere.

Besides, it was worth the price of admission. Of course, it looked like a goat fighting a tandem compound, but at that the goat had a way of butting in and getting away again that made him an even-money bet, and a couple of times I couldn't help but give him a glad hand when he struck a coupler into the big fellow's lights.

But the kid was giving away a lot of weight, and I felt sure the time was approaching when I would have to get into the mêlée—and I wasn't a bit anxious.

Maggie, however, was getting excited, and she kept twisting that cannon around in a way that made a fellow nervous.

Well, the big show had been going on for about five minutes, when the new inhabitant set out a load of coal on the boy's eyebrows and he went to the floor, and I was just stepping in to leave the impression of my lantern over the bully's brain-house, when Almost came up from the mat, bringing the poker along and gently tapped his nibs over the cupola.

He telescoped. Went down in a heap, and the boy started to put the kickers to him when I interfered—and came near getting thrashed.

"There's no need killing him," I yelled at the boy, who, excepting the bloody spots on his face, was as white as a sheet.

"He almost robbed the post-office!" panted the belligerent in justification.

Maggie Tells the Story.

But he let up and we proceeded to tie the fellow hand and foot, and I went over to the station, told the big news of



the other she held a cannon which would have blown the entire town of Hulbrook off the desert if it had ever decided to explode.

In the middle of the room, near the stove which was used about twice a year, but left standing all the time, Almost, and our new population, were so fixed up you couldn't tell which was which.

Maggie Holds the Gun.

Just as I came through the door, Maggie turned that gun in my direction and it looked as big as the Supai tunnel. Then she seemed to realize that I was one of the regular animals and lowered the gun. I stepped farther into the room, throwing the light onto the bunch of hostility on the floor.

"He's robbin' the post-office," screamed Maggie.

"I can't see where he's having much luck," I answered, and just then the two

the day, and sent a message down to the next town for the United States marshal.

When I went back to the post-office to see that everything was all right, Maggie Mahorney and Almost were having a little chat. I heard the boy saying:

"I reckon it wasn't just right ter drop that poker on him that-away—but I almost had ter do it."

"Goodness but you're a brave man," I heard the woman say, and then in characteristic humility the war-scarred hero piped:

"Brave nawthin. Didn't he break inter your post-office? I almost had to whip him, 'cause after we come in ter see what the racket were, you was standin' in th' door so I couldn't git out. And there I was an' there he was, and some one had ter get licked and it was almost me."

Honoring the Hero.

The next day we had to invent some way of doing honor to the hero. We couldn't have a parade that day, for one of those Arizona sand-storms was cavorting around the place, so the town population held a meeting over in the box-car station, and, by a unanimous vote on the part of the agent and myself, we decided that the hero should be rewarded.

Heretofore his sole occupation seemed to be taking care of Jed Latroupe's livery barn and hanging around the post-office. It was easy to see that a general foreman had to have a chief clerk—so easy to see that they could see it clear from Albuquerque, and had already provided \$45 from the monthly revenue of the road for the compensation.

As the station-agent had to stay in hearing of the telegraph instrument, I was appointed a committee to call at the post-office and inform Almost that, as a reward for heroism, he would be allowed to work a month for \$45 and after that more months if he liked it.

Getting Protection.

It was also agreed that for the safety of the public, Maggie Mahorney should be requested to lock the cannon in the safe

every night, along with the dollar's worth of postage-stamps.

It just happened that a pusher engine came in about that time, and the United States marshal drove in to take his prisoner home. I got them all together and it was quite a respectable committee that waited on Almost that morning.

After showing the bunch that I was there with the genuine oratory, I told Almost we had decided that he should be general foreman's chief clerk at a salary of forty-five semolians per month. We waited to hear his eloquent reply.

He made a noise like a long silence. That side-track smile of his spread out until it looked more like a double-tracked main line, and those freckles which were not hidden by the black and blue spots, concealed themselves behind an unnatural red.

After the ceremony, he came around to me for instructions. I took him down to the pusher engine, introduced him to the shaker bar, clinker rake and ash hoe, showed him how to get under the fire-pan without taking off a driving-wheel—and he went to work.

Getting the Grates Clean.

A couple of hours later, I came back to see how he was getting along. I'm not sure but I think he went over those grates with a tooth-brush and a bottle of tooth wash. You could have climbed into the fire-box or ash-pan with a dress suit on without getting a black mark on your boiled shirt.

After the inspection, I told him that he would some day be president of the road, but that didn't chase the troubled expression off his rust-colored face.

"Mr. Thomas," he says, as I was starting away. "Could two folks live on \$45 a month—if one of 'em was the post-mistress?"

"Almost," I replied, for that was the nearest to the truth I could come at that hour of the day. "But a fireman makes as much as three times that much," I added, on second thought, "and you'll be a fireman some day."

And I walked away.

In the next story about Almost, which will appear in our April issue, certain complications arise whereby the general foreman quits and the chief clerk strikes.

PET NAMES FOR TRAINS.

The "Cripple Special," the "Red Cross Special," the "Cheese Train," the "Bum Two," and Other Pet and Particular Appellations.

RAILROAD men on some roads have a way of giving pet names to their trains. For example, a new freight-train was recently placed on the New York Central running between Syracuse and Albany. This train has been dubbed "The Red Cross Special," or the "Cripple Special," because its business is to pick up all the crippled cars along the line and take them to the repairing shop at Albany.

It is usual to have a particular train to haul the crippled cars, for, obviously, it would not do to have a fast freight, or many of the other freights do this service. It is deemed good business to have one train attend to this matter. The "Red Cross" hauls other cars besides the cripples.

The men on the New York Central have other names for their trains. The "Morning Glory" is a train which leaves Albany very early in the morning. The "Mohawk" is a freight which runs from New York to Albany without stopping, and then it begins to drop cars along the Mohawk Valley.

"Moonlight" is an Adirondack summer freight running to Saranac Lake and Lake Placid, starting out from Utica at midnight. "Bum Two" receives its name for two reasons. The symbol of this train is

BM—2, besides it has a lot of shifting to do, stopping along the way, and a lot of cut-up work to do. Trainmen do not like to handle it, and for this reason, as well as on account of the symbol, it got the name of "Bum Two."

The "Cheese Train" is a freight which leaves Utica in the morning and stops along the dairying sections of the Mohawk Valley at Herkimer and Little Falls, collecting the cars loaded with cheese.

The "Turkey Special" is an annual express which starts at the St. Lawrence River and runs down through Central New York, collecting turkeys and other fowl for the Thanksgiving trade.

The "Midnight Drop" is a freight which runs out of Albany and drops cars at various stations up the valley.

"U. A. 8" is called the "Fancy Special," because it makes a fast run from Syracuse to Albany in the autumn, carrying fruit. Trainmen like to run this special, for they can make a good wage in a few hours and without any shunting.

The officials know their trains by symbols, but the men know them by pet names as well as by symbols, and the names are always significant.—E. A. S.

PRESIDENT TAFT'S RAILROAD MESSAGE.

IN his special message to Congress on January 7, President Taft recommended the following amendments to the interstate commerce act governing railroads:

A special commerce court.

That the Department of Justice conduct all prosecutions and defenses growing out of the interstate commerce law.

That traffic agreements subject to the supervision of the Interstate Commerce Commission be authorized.

That railroads be compelled to quote rates in writing on request.

That the Interstate Commerce Commission be authorized to institute causes on its own motion.

That classifications be subject to approval by the Interstate Commerce Commission.

That the Interstate Commerce Commission be empowered to suspend a proposed increased rate for sixty days, pending investigation.

That shippers be authorized to route shipments subject to supervision of the commission.

That railroads be prohibited from acquiring stock in a competing line of which they do not already possess control.

That all stock and bond issues be made subject to approval of the Interstate Commerce Commission.

That the commission be empowered to compel uniform adoption of safety appliances.

That plaintiffs under the employers' liability law be permitted to bring suit wherever service can be had.

THE FIGHT AT BATTLE DRAW.

BY EARLE C. WIGHT.

How the Heat of a Smoldering Bitterness Flared Into a Passionate Flame of Revenge.



WE had been talking about murder and sudden death. Personal experiences gathered before the kid-glove period in the West, when every man was his own judge. Whether or not he was the executioner depended upon his speed in drawing.

"Do any of you happen to know how this branch of the C. and A. acquired its name?" asked the general manager, addressing no one in particular. The rest of the party kept quiet, rather afraid of displaying their ignorance about a matter of which they had never thought, and not inclined to hazard a guess before so august a person.

Only the division engineer ventured the opinion that he had heard rumors from some of the old ranchers concerning a particularly vicious mill during the early construction days, which had resulted in christening the valley through which the branch ran Battle Draw. Then, whether because his knowledge really was limited, or because he feared to interrupt the story he knew was coming, he lapsed into silence.

"The ranchers are right," agreed the general manager; "it was a particularly vicious mill. It has been a long time ago now; all of you were probably in short trousers at the time—that is, all except Byrd here, who was in dresses, and Whitley, who was present, and will no doubt correct me if I make a mistake. I'll tell you about it if you like." We nodded assent, and he leaned back on the soap-box, resting his head on one of the rough logs which formed part of the wall of the cabin.

I looked at Whitley curiously, the man the general manager had mentioned as being present, wondering what part this silent, taciturn man could have taken in the story we were about to hear. Not a kindly part, if his face and reputation were evidence, and nothing in his conduct since he had been among us was likely to cause a more favorable opinion. Harsh and domineering, his hold over his men was entirely through fear.

Officially, he was Calhoun's private secretary; but that was only a blind. Really, he was his right-hand man, drawing a salary in proportion. I know this, because a friend of mine in the cashier's office told me his salary was fifteen thousand a year. A big salary for a secretary to a general manager, but then the general manager was no more, what his title implied than was the secretary.

It had seemed a little strange when Whitley, on this rough-and-tumble inspection tour, had guessed to a foot the fall of Battle Creek, and, later, a sudden shower sending us to cover, the manager led with unerring steps to the tumble-down cabin. But the one we had credited to a clever guess, the other to a lucky chance for which we were duly grateful.

The private secretary scowled in the general manager's direction. "I wouldn't tell that story," he remarked softly. "Better let sleeping dogs lie." The interruption went unnoticed. It is doubtful if the general manager even heard it, busily lighting a black cigar.

"It was just after I came from Mexico," he began; "some time in the early seventies, if my memory serves me. We had completed the Yucatan and Guadalajara extension, the work taking us from an elevation of seven thousand feet to be-

low sea-level through as dismal a swamp as a mosquito ever called home.

"The result was that, after I reached Denver on my way East, I was taken with a severe attack of malaria. It shook and froze and burned me until I was little more than a living skeleton. Another man could have been tucked very comfortably inside my clothes without crowding me very much. It was ridiculous the way they flapped about me every time I struck a street corner where there was a current of air.

"But that was later, though. For the first two months I merely laid in bed, absorbing calomel and quinin in such quantities that I won't test your credulity by stating that before it was over the doctors gave up measuring the doses by grains and went to handfuls.

"How is Mr. Calhoun to-day?" I heard one of the physicians ask a nurse.

"A little better, I think," she answered; "he only shook two bricks from

the left-tower chimney last night as against five the night before."

"Cut the doses, then," directed the doctor. "Make it a quart of quinin and a pint of calomel every hour." That was the way it seemed to me, anyhow.

"When they did finally discharge me cured, I found myself in rather a bad way; physically weak and so poorly off financially that it was necessary to abandon my trip home and find some kind of work. I found it at last in the office of the D. and R. B.

"Hum!" said the chief clerk, to whom I applied for a job. "You look more fitted for a side-show than an engineering corps." I took a long breath and tried to fill out my clothes, but they only bellied and flapped in the draft from a fan he had on his desk. "What's the trouble?" he asked; "have you stolen another man's suit, or are you half of the Siamese twins?" I explained the circumstances and showed him my letters.



"DIDN'T THEY TELL YOU AT THE OFFICE
THAT ANOTHER MAN HAD BEEN
SENT AHEAD OF YOU?"

" 'We might use you,' he conceded, 'always provided you reach camp in one piece.' I assured him I could hang together that long.

" 'Here'—he went on picking up one

picking his way carefully along the top of a narrow ridge. Sam, the mule, tugged now and then at the lead rope, tempted from the path of duty by a patch of green. Behind me lay miles of mountain and



"AND THEY DO SAY HE IS GOING TO BE CANNED."

of the letters—' is one which says you are a good transitman. We happen to be in need of such, as the present one is hardly satisfactory. The position will pay ninety a month. How does that strike you?'

" 'When do I start?' I said, eager to close the bargain. He led me to a map of Colorado, hanging on the wall. 'Now, here,' indicating with a blue pencil, 'is Denver. This spot is Pagosa Springs. How long will it take you to reach it?' I calculated the distance with my eye, noting the roughness of the country as compared with my own feeble condition.

" 'Three weeks,' I hazarded.

" 'Good!' he said; 'your pay starts now. To-morrow you will find a horse and pack-mule at Goodwin's corral. Come here at ten for your last instructions.'

"Just twenty days later my horse was

valley, just beginning to clothe themselves in summer attire. In the heads of the draws faint patches of damp earth showed where winter had made a last, desperate stand.

"I was beginning to get a little worried, for, according to my calculations, I was close to where the party should be. A preliminary survey is a difficult thing to miss in a wooded country where the cutting is ten feet wide; but I had crossed bare valleys and flats where the only indications would be trampled grass and an occasional stake. Luck was with me, however, for very shortly I found it—a wide swath cut in the brush and small timber half-way up a heavily covered hill-side.

"My horse stumbled over a blue-keeled stake marked 1725. As they had told me in Denver that I should probably

find the camp close to the 1800 mark, I was by now within two miles of my destination. A half-hour's traveling along the line brought me to headquarters, six white tents pitched in the head of a draw beside a small stream. Not a very luxurious outfit, but, after three weeks of constant riding and sleeping on the ground, they seemed the height of civilization.

"The place seemed deserted. Only a thin curl of smoke from the cook-shack, set a little apart, indicated the presence of men. I called several times before any one answered; then the flap of the largest tent was thrown aside, and a tall, flat-backed young fellow came out.

"There are some people whom you dislike instinctively at first, for no apparent reason that you could explain to yourself. You dislike them, that is enough. In this case the feeling seemed mutual, for he pulled his hat low on his head and stood scowling at me from beneath the brim.

"Well, what do you want?" he said finally.

"The tone didn't exactly suit me, but I let it pass.

"I'm looking for the locating engineer," I answered mildly.

"Well," he repeated impatiently.

"So this was the man I was to work under. Things looked squally for me. If he continued in this attitude, I could see where they would need another transit-man very shortly. I handed him the letter they had armed me with before setting out.

"Here I had the first suspicion that everything was not as it should be. Instead of opening it at once, he hesitated, looked at me, then down at the letter in his hand, and, with the air of a man who has gone too far to draw back, tore it open. He read it slowly, tearing it into small pieces which he ground into the earth. I took this for the end of the interview, and threw one leg over the pommel preparatory to sliding from the saddle.

"One minute," he halted me. "I'm sorry, but you're too late."

"Too late for what?" I asked blankly.

"Too late for the job. It's already been filled. Didn't they tell you at the office that another man had been sent ahead of you?"

"They hadn't said anything about it, and I told him so frankly. Moreover," I added warmly, "the man who played a trick like that deserved to herd sheep." At that time this was equivalent to a pretty strong oath.

"I suppose," he said indifferently, "they wanted to be sure one of you would reach here."

"Then, there is nothing for me to do but—"

"To go back. And I would advise," he continued, looking at the sun, "that you start at once if you want to reach the divide by sundown."

"I ignored the hint, and tumbled off. The disappointment was keen, for I had counted on at least five months' work, and Denver was barren of jobs. But, knocking around, a man gets hardened to ill luck, so I tried to take it philosophically.

"With your permission, then," I said, "I'll get a couple of good-meals and start back in the morning."

"His eyes narrowed a trifle. 'As far as a meal is concerned, you're welcome to that; but we haven't a spare cot in camp.'

"It just dawned upon me that he was trying to run me off; that, for some reason, he was determined I should not spend the night with the party. Ordinarily, I would have been only too glad to have left a place where it had been so clearly shown I was unwelcome; but for the sake of three decent meals and a night under canvas I was willing to intrude.

"The cot won't matter," I said casually. "It's the breakfast that appeals to me."

"There will be no breakfast for you," he said grimly. "As you seem rather hard of comprehension, I'll put it frankly. You are not wanted here to-night. If you're hungry, the cook will rustle something for you, though," he added, as if to soften the bluntness of his refusal.

"On the way to the cook-shack I tried to make up my mind what was the best course to pursue. Many things had struck me as peculiar about my host. The hesitancy about opening my letter was one; its destruction was another; and, strangest of all, his ill-concealed desire to be rid of my presence. To a few men in a lonely place the advent of a stranger is an occurrence, and it is a very peculiar camp that would not make him welcome.

"Either that, or there was something crooked going on. It was really none of my business if the company was being cheated, after the way it had treated me, but I was curious. The experience of being literally forced out of camp was unique, and I determined, if it were possible, to find out the reason. With this idea in view, I ate so heartily and talked so much that my inhospitable host—he refused to allow me out of his sight—began to grow restless.

"On my suggesting that my animals could stand some food and water, he volunteered to attend to it, warning me as he left that it was getting late. When he was well out of hearing I turned my attention to the cook.

"'Nice, cheerful fellow, that Canby,' I remarked.

"'Who? Him? That ain't Canby.'

"'But that's the name they gave me in Denver,' I objected.

"'Son, you're in the right church, but the wrong pew. Canby's an oldish man with gray whiskers. Do you think I'd mistake them two after living with them for two months?'

"'Then, who is *he*?'

"The cook lowered his voice confidentially. 'That is the transitman, and they do say he is going to be canned.'

"That one sentence gave me the key to the whole situation. It was so plain now that I wondered at not seeing it before. All the circumstances pointed to one thing, and that had such a nasty look that it was hard to believe a white man was capable of it. The way it figured out was this:

"The transitman knew he was to be discharged. Through living with the locating engineer, which of course he did—that being camp etiquette—he had managed to find out about the time I would arrive. The rest was easy. He had only to feign some excuse for staying in camp, and, by passing himself off as the chief, turn me away with the story of a new man who had antedated my arrival.

"He was smart enough to know that my story would never be believed at the office. They would put it down that I had lost my way and had invented this yarn to excuse myself. The cook might never mention the fact that he had entertained a visitor, or if he did I could be

passed off as a wandering prospector who had grown tired of his own cooking.

"There was one link which was not quite connected. After that was joined, the chain would be complete.

"'Perhaps it would be a good thing for him if he did,' I said, replying to the cook. 'A sick man has no right to be out in the open like this. He ought to see a doctor.'

"The cook grunted. 'Sick nothin'. He eats like a hoss. It's my opinion that he's layin' down because he knows what's comin'.'

"The evidence was all in. I thanked the cook, and told him I'd probably see him again. A wave of heat blew in my face as I entered the largest tent. The interior was just the same as a thousand I have seen under the same conditions. Two smooth pine boards resting on trestles and covered with maps, instruments, sacks of tobacco, and a gun. In the back corners were two cots covered with Navajo blankets. A rope was stretched under the ridge-pole, from which were suspended some blue shirts and a pair of khaki trousers.

"My host was lying on one of the cots, reading. He looked up and smiled pleasantly when he saw me.

"'Going?' he asked.

"'Staying,' I answered, seating myself on the vacant cot.

"He was on his feet in an instant. 'Have you so soon forgotten what I told you? No man stays here at night without my permission.'

"I rolled a cigarette slowly before answering. Beads of perspiration bedewed his forehead before the last grain of tobacco was tucked in its place. He didn't dare say anything, for fear of giving himself away, for while he probably feared the worst, he could not tell just how much I had guessed.

"I threw the match away and faced him squarely. 'Do you know,' I said, 'I've a great desire to know whom I'm addressing. Never mind that,' I went on, as he started to tell his candid opinion of my ancestors; 'the question now is, what cards do you hold? You are called. What have you?'

"'A full hand of clubs,' he said, showing he had a sense of humor. 'Out in front is a good place for a show-down.'

"I was agreeable, and we had the show-down, with the cook for referee. When it was over, and he was able, we shook hands and patched up a story to explain his battered face."

"So that was how this came to be named Battle Draw?" said Byrd.

"Not a bit of it. We haven't come to that part yet, eh, Whitley?"

The private secretary shook his head gloomily. "At this rate you will have them all thinking I was the scoundrel

from here if the rain would let up. Like everything else, it had its day, but has long since played out.

"The man who tried to trick me was still with us, working sometimes with the leverman, helping the draftsman, or with our party, as occasion arose. We had never become very friendly, but, thrown together as we were at work, at play and meals, we had adopted an armed truce for the sake of the peace of the camp.



"NO MAN STAYS HERE AT NIGHT WITHOUT MY PERMISSION."

who tried to get your job. My back is flat, and I was with you then."

"Nonsense, man," laughed the general manager, "this is only a story to kill time until the rain stops. But to go on. A month passed, and we had worked nearly down to the mouth of the valley, perhaps a mile from where we are now. There was a small settlement here then—a dozen houses and a couple of saloons. The one we're in now was the headquarters of the superintendent, rather larger and better built than the others.

"Their excuse for being was the Silver Slipper Mine, which could be easily seen

"He knew, and I knew, that the account was not closed; that something more decisive than a rough-and-tumble was needed to balance the books. In the meantime we waited.

"At noon one day a guide rode up with a bagful of mail. We fell on it eagerly, for mail only arrived once a month.

"'What do you think of this?' asked Canby, presently looking up from the letter he was reading. 'The office writes that Sid Lyons is camping on our trail. He is working for the Overland, you know, who likewise are thinking of building into Pagosa. Isn't that the deuce?

They also warn us to look out for his crowd.'

"'Who is he?' I asked, for the name had been mentioned several times in the same tone the Russians might have spoken of Napoleon.

"'The biggest, meanest proposition in the engineering business,' said Canby. 'He is the raven of war, the harbinger of trouble. If a nice, hot fight took place without his being there, he'd weep. We might as well quit if it comes.'

"I could hardly believe my ears. Nine husky, young Americans—nine and a half counting the cook—afraid of a name. The others took it as a matter of course. If Lyons came, they quit. Their acceptance of his fighting abilities was so natural that I should have been warned. Instead I rushed in.

"'There is one thing we might do,' I suggested, 'we might run him off.'

"The boys hooted. Evidently I had displayed vast ignorance, which amused my companions. I could feel the color surging into my face at their jeers. One man's, the only one in the crowd whose laughter I minded, sounded a little contemptuous.

"'If he will only stay away another month we might finish,' said Canby.

"'If he comes before then,' I remarked looking hard at the man whose place I had taken, 'I'll see that he leaves our work alone.'

"No one said anything more, for they saw I was angry, but there was a pleased smile on the face of the man who had baited me. The opportunity for which he had waited had come and he had seized it.

"Lyons didn't wait for us to finish. A week later, on going back to check some angles we found every stake on the line pulled up. When two surveyors are fighting each other this is the usual method of proclaiming war.

"We had our maps, of course, but the State laws say the survey must be complete before they can be filed, and without the stakes actually in the ground the maps were useless. Paralleling ours was another line with a full party at work. It was not difficult to guess the culprits.

"'All off for camp,' sang out the chief. I looked at him in astonishment.

"'Well,' he said flushing, 'there is no good in fighting Lyons.'

"I pulled his gun from his holster. Mine interfered with the needle of the transit, so I didn't carry it.

"'You're too timid a man,' I said, 'to carry such a dangerous weapon. Go on with your work and let me attend to this matter.'

"A rodman on the new line told me their chief was at the settlement. Halfway there the ex-transitman overtook me.

"'Thought I'd see you through,' he said briefly, falling into step. Then and there I buried all hard feeling. What he had done before was forgotten.

"He was man enough to overlook our personal differences in the new crisis which confronted us. Also, he was the only one of the boys with courage to join me. After I saw our man I was better able to appreciate that courage, for he wasn't walking into it blindly the way I was.

"We found Lyons sitting on the steps of one of these shanties he had taken for an office. He was the biggest fighting man I've ever seen. My heart failed me for a moment, he was so formidable.

"Under his shirt his chunky shoulders—he was over six feet one, so you can guess how broad he was to make him look that compact—were creased and ribbed with muscles. His neck was set so close to his body that an inch ribbon would have choked him to death.

"With all his size there wasn't a pound of fat on him. When he walked it was right on his toes, as though he had springs in his feet, so I knew he was quick and not clumsy. I began to feel sorry for myself, but it was too late then.

"'Good evening,' I said politely. It was easy to be polite to him.

"He didn't answer me, continuing to study the profile in his hands, so I sat down and rolled a cigarette. When he had finished his calculation he looked up.

"'Well, sonny, what can I do for you?'

"'Oh,' I said, trying to be sarcastic, 'I just came here to admire your form. Don't bother to talk to me.'

"'How are your stakes this morning?' he came back.

"'I don't know,' I answered truthfully, 'I haven't seen them.'

"He grinned at that. 'Is that what you came to see me about?'

"I said it was, and added what I thought of a man who played the game so unfairly.

serve, or give you a good thrashing, which would be letting you off easy.'

"Hey, Jack,' he shouted to one of a



MY HAND WENT THUDDING AGAINST SOMETHING THAT CRACKLED SHARPLY.

"What would you have me do,' he asked, 'put them back?'

"That would be the decent thing,' I said, 'but I hardly expect you to do it.'

"Then what do you expect?'

"To keep you away from our line. We can repair the damage you have already done, but this is to warn you not to repeat it.'

"And if I do?' he sneered.

"There are two things I might do,' I said slowly, 'I might shoot you as you de-

group of miners, 'here's a young buck who wants a fight.' They came crowding over, laughing at the prospect.

"When would you like to be spanked,' he asked, 'now or in a year or two when you are fully grown?'

"This evening,' I retorted, 'now.'

"He was a little taken back by my prompt acceptance. Even then I think he thought it all a bluff.

"Suit yourself,' he said. 'Will some one hold my coat?'

"My companion came forward, taking

both our coats, and I didn't see him again until the trouble was over. It made me a little shaky being left alone with that big brute and those strangers.

"The feeling did not last long, for immediately I was kept busy trying to dodge the vicious blows which Lyons aimed at me; any one of which, had it landed where he intended, would have ended the fight. He was like a cat on his feet, and with his tremendous strength was the best man I ever met.

"Every time a blow landed it left the marks of his clenched hand outlined in red on my skin. Once he hit so hard that he lifted me clear off my feet. Close to two hundred pounds I weighed too.

"The realization came to me very

shortly that he was more than my equal, and that only luck stood between me and a bad beating. So far it had favored me; he was unable to break through my guard and reach my face.

"By the end of five minutes he had punched me into pretty bad shape. It was agony to breathe, while my knees felt as though they would give way every minute. He saw it, and came after me all the harder. There was no time called; it was fight, fight, fight, with the miners cheering us on.

"I could only block and stall now, waiting and hoping for my one chance. Twice it came, the first time when he tripped and nearly fell, but my blow went high, nearly breaking my hand against



THEN—THE SHARP, METALLIC
REPORT OF A PISTOL!

his head. The second time he struck too quick, overreaching himself, leaving a narrow opening to his chin.

"I struck with the desperate knowledge that this was my last chance. My hand went thudding against some thing that crackled sharply, and Lyons went toppling over backward.

"He rose before any one could help him, hoarsely demanding his coat. One of the miners handed it to him.

"At the same time I felt something thrust into my hand.

"Shoot quick," the person behind me whispered. Mechanically I raised the gun and fired twice. Through the smoke I saw Lyons's gun, the cylinder revolving rapidly in the light of the setting sun, but no report answered mine. Slowly his hand fell to his side and again he tumbled heavily to the ground.

"That is all of the story I think. We finished our survey without interference from the other party. The miners who had witnessed the fight gave the name Battle Creek to their settlement, and so it went in on our maps.

"By the way, Jim, there is one thing that has always puzzled me." The general manager leaned forward, his cigar glowing redly against the grayish background.

"That gun was not my own. You ought to be able to explain it. You were there."

An inarticulate sound caused him to pause. "I mean," he went on hastily, "that you were with the party. That you were in probably a better position to know the details than I."

Instead of answering, Whitley rose and groped his way to the door, where he stood a long time looking into the drizzling gloom. It was one of those situations when to speak is a mistake, to keep silent is worse. Only the drip of falling water where the rain had found a hole in the rotting roof broke the quiet.

The general manager's face was a picture of regret and pain as he watched the motionless back of his old friend. When the monotonous sound of splashing drops threatened to become unbearable, he rose stiffly, seating himself again as Whitley turned around. With one hand concealed in his pocket, Whitley stepped swiftly back to his old place.

"Calhoun," he said, and there was a note in his voice which kept us quiet, "the event you have just told took place over thirty years ago and I've waited just that long for you to do what you have done. When you began I warned you to let sleeping dogs lie. Later, I gave you a chance to leave me out.

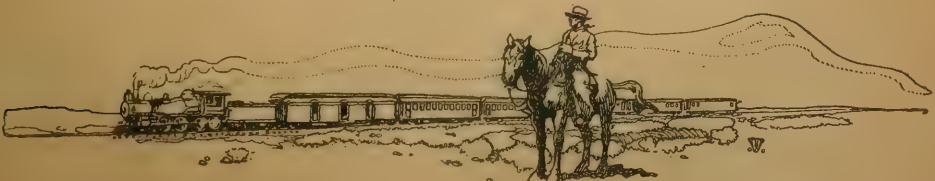
"Had you taken heed there would be no necessity for what is going to happen. But you didn't. Now, thanks to your blunders, all these men know it was I who tried to save my job by lying to you. That it was I whom you thrashed that day. And they have probably guessed likewise that I changed the guns, abstracting the cartridges from the wrong one!"

"But Jim—"

The secretary's words beat down the protest. "You've had your say, it's my turn now. Don't you know, you fool, that there could be only two reasons for my continued service to you—love or hate. Did you imagine it was the former?" He laughed wildly. "Over thirty years' accumulation of bitterness for this one moment—but, by Heaven, it's worth it!"

Then—the sharp, metallic report of a pistol! Like a shadow Whitley slipped past the hands reached out for him. The general manager's big body seemed to shrink, the black stump of his cigar fell from his fingers, and he slid forward into the fire.

Whitley was never brought to justice, but if you ever come across a tall, flat-backed man, with a face all iron and stone, eating his heart out in some God-forsaken place, you might tell him what I've told you.





WHEN I'M A MAN.

BY LESLIE CURTIS.

Written for "The Railroad Man's Magazine."

I'LL be an engineer, like pa,
When I'm a man.
Gee! He makes her whiz along the track—
You bet he can!
But onct there wuz an awful wreck,
When I'se a kid,
An' hurt pa somewhere in the slats—
That's what it did.

Pa lets me ride with him sometimes,
On Saturdays.
I'm mighty glad I ain't like Tom or Joe
Or Billy Hayes.
Their dads ain't workin' on the road
The same as mine,
An' they don't git to ride like me—
Not any time!

Onct when we wuz a standin' still,
Two gals came by.
Pa says, "Jest pull the bell-rope, Tim, and watch
Them critters fly."
Glory! You orter heard them gals
An' seen 'em run!
They jest picked up their skirts an' got!
'Twas howlin' fun!

Pa most fell out the cab, jest cause
He laughed so hard.
But onct we had a heap more fun than that
Down in the yard.
There wuz a mule what balked right on the track—
He moved, you bet!
Pa whistled, an' I guess that mule
Is runnin' yet!

Ma's always worryin' about me,
Cuz she's afraid.
But then, it ain't her fault, for that's the way
All gals wuz made.
But pa ain't 'fraid of nothin' 't all—
Ain't got no fear.
An' you bet, when I'm big, I'll be
An engineer.

WITHOUT LIGHTS.


BY J. AUBREY TYSON,

Author of "The Man of Straw," "A Railway Pizarro," "The Man Who Lost Himself," etc.

A Man Runs Blindfolded On a Strange Track and Against the Semaphores.

CHAPTER I.

A Shattered Hope.

M very sorry, sir, but Mr. Warrington is engaged and can see no one this morning."

The private secretary of Andrew Warrington, the general manager of the Chicago, St. Louis and Western Railroad, glanced at a card bearing the name "Frederick Erskine." The visitor was a stalwart, gray-clad young fellow, with dark, clean-cut features.

"I've come seven hundred miles to see him," he explained.

"Did Mr. Warrington ask you to call?" the private secretary asked.

"Yes," replied the other. "Mr. Warrington, writing to me last week, told me to call on him at my earliest convenience. The letter came to my hands two days ago. I arrived in the city this morning."

The private secretary frowned slightly, and hesitated.

"Is it a matter of importance?" he asked.

"To me it is a matter of very considerable importance," Erskine answered, with a smile.

"I will take your card to Mr. Warrington," Gerrick said.

The private secretary crossed the room with reluctant steps and entered an inner apartment. At a large, flat-topped desk, sat Andrew Warrington, the general manager of the road. Slightly above medium height, he was sturdily built and about fifty-five years of age. His hair and mus-

tache were gray, and his neck and hands were large and muscular.

His face was broad and resolute, but on it, this morning, had settled a careworn expression, and his eyes were bloodshot. He gripped the arms of his chair, and as he glanced at Gerrick, he frowned irritably.

"What is it, Tom?" he demanded shortly. "A card! Confound it, didn't I tell you that I would see no one this morning?"

"Yes, sir, but—"

"Who is it?"

"Frederick Erskine, who says he came here at your request."

Warrington scowled, hesitated, then took the card which Gerrick held out to him. He looked at it thoughtfully for a moment. Motioning abruptly toward a wire basket, he addressed Gerrick.

"There's a letter there, Tom—a letter from old Sam Erskine, one of our locomotive engineers. Find it for me, please."

Gerrick found the paper and laid it on the desk.

"Read it," directed the general manager.

Gerrick read:

FRIEND ANDY—It ain't in my mind to spring no new bother on you, after all the kind things you have done for me and mine, but four years ago, when my boy Fred went into the Altoona shops, after you had helped me to put him through Columbia University, you made me promise that when he left Altoona I would send him to you so as you could look him over. Well, Andy, he's gone through the whole Altoona course, with colors flying, and the folks down there

has writ to me that all of them is proud of him:

For forty years the old C., S. L. and W. has been good enough for me, so I'm sending the boy round to you. Look him over, Andy, and if he sizes up to you half as big as he looks to me, like as not them Pennsylvania fellers will have to snoop a little further for a future president of their company.

Well, anyhow, Andy, it's up to you. Fred is still hanging round Altoona, doing a special stunt or two, and any time you want to see him all you will have to do is just to drop him a line. The lad is honest and earnest, and is so up in the higher branches of railroading that he just naturally ought to be ashamed of a daddy that never got no further along than the cab of a locomotive, while his old fireman, Andy Warrington, was getting to be the general manager of the road. But the boy is just fool enough to be as proud of me as I am of him, and it don't matter how small a berth you shove him into, he'll make his way and be a credit to you and

Yours truly,

SAM ERSKINE.

Andrew Warrington thrust the letter back on the desk, and, again gripping the arms of his chair, turned thoughtfully toward one of the windows. Gerrick continued to regard him speculatively.

"Tell him to come in," the general manager said grumpily.

Gerrick nodded and went out. In a moment the door opened again, and the visitor entered. He moved a few paces in the direction of the man he saw seated at the desk.

It was the first time that the young man had seen this old friend of his father's, and it was scarcely more than natural that he should look for some manifestation of cordiality on the part of one whom he long had regarded as a benefactor. Strangely enough, however, the general manager, turning slowly toward him, looked at him dully, and without speaking.

The young man stopped, bowed, and glanced inquiringly at the sturdy figure and pale, careworn face of the man at the desk.

"Mr. Warrington, I believe," said Erskine, smiling slightly.

The general manager passed a hand over his eyes.

"Yes—yes," he answered absently; then, after a pause, he added: "You are Sam Erskine's boy?"

"Yes, sir," replied the stalwart six-footer easily, "and first of all I want to thank you for all you have done for me."

Warrington shook his head gravely. "You have little to thank me for, I am afraid," he said with a sigh. "The only persons who set a price on their advice are lawyers and physicians. The rest of us give it more cheerfully than we accept it. Such financial aid as I have given to your father was less than I offered, and he has repaid me dollar for dollar. My old friend would have done better, perhaps, had he refrained from mentioning the subject to you."

The young man smiled, shook his head incredulously and advanced with his right hand extended. "Permit me to thank you now," he said.

The general manager half rose from his chair and grasped the hand that his visitor held out to him. "Sit down," Warrington said perfunctorily.

Erskine nodded and seated himself on a chair near the desk.

"And so you are done at Altoona," Warrington muttered, as, leaning forward, he rested his elbows on the arms of his chair.

"Yes. I finished the course six weeks ago."

The general manager's lips were compressed as he gazed meditatively at the old man's letter.

"Your father tells me that you want to enter the service of the C., S. L. and W.," said Warrington at last.

The young man smiled. "Yes," he answered.

For a minute the general manager, gazing moodily at his desk, was silent, then speaking deliberately, he said:

"Well, my boy, I'm sorry, but in the service of this company there is no post that I can offer you."

CHAPTER II.

Working in the Dark.

AS the general manager spoke, Fred Erskine started, flushed, and looked at him incredulously.

Andrew Warrington, who had entered the employ of the C., S. L. and W. as a fireman on a locomotive, more than thirty years before, now was regarded as one of the most able railroad men in the United States. He had occupied the post of general manager for twelve years, and for several months it had been rumored that as a result of a series of differences between him and Henry Burbridge, the president of the company, the directors were disposed to compel Burbridge to resign, and to make Warrington his successor.

Some of this gossip had reached the ears of Fred Erskine prior to his visit to Chicago, and had done much to encourage his belief that his advancement in the service of the company in which this old friend of his father's was so powerful was likely to be much more rapid than he would find it elsewhere.

Old Sam Erskine had been a loyal employee of the C., S. L. and W. for forty years, and it had been his sole ambition to give to his only son an education that would enable him to make his way upward as Andrew Warrington had done. Warrington, as has been seen, had afforded material aid in this direction, and it was in accordance with the advice of the general manager that Erskine had applied for admission to the Altoona shops after he had completed a scientific course at Columbia University.

To most persons, other than railroad men, Altoona is nothing more than a smoky town in Pennsylvania, in which are located the repair and construction shops and several important offices of the Pennsylvania Railroad. To the railroad man of high or low degree, however, it stands for all that West Point means to the officers and enlisted men of the United States Army, or all that the naval academy at Annapolis represents to the navy. It is the world's greatest training school for railway officials, and its influence is world-wide.

In the course of the long pause that succeeded Warrington's statement, the expression of incredulity that had settled on Erskine's face gave place to one of wonder and chagrin. Warrington's face was pale and grim as he continued to gaze at the letter that lay before him on the desk.

Erskine was the first to break the silence. Nodding resignedly, he said quietly:

"I am very sorry to hear you say so, sir. What your reasons may be for this decision, I do not know, of course. In view of all that you have done for my father and for me, however, I hope that neither my father nor myself has done anything to displease you."

"On the contrary, I regard my relations with your father, and, indirectly, with you, as among the more satisfactory of my experiences," replied the general manager moodily.

Erskine was trying to formulate some appropriate words of farewell when he suddenly became conscious of the fact that the general manager was eying him with a new expression of interest. After an approving glance over the tall, athletic figure of his visitor, Warrington critically studied the young man's face.

"Sit down," he said, for young Erskine had risen to go.

As Erskine seated himself again, the general manager leaned back in his chair and, gazing at his desk, slowly stroked his chin. The young man watched him curiously.

"Fred," Warrington went on abruptly, after a pause, "you made a pretty good run of it through college, I believe."

"Why, yes, sir—I did pretty well," faltered the young fellow.

"I have been more particularly informed concerning your work in Altoona, and on your performances there, I congratulate you with all my heart," Warrington went on. "There is only one thing that I hold against you."

"Indeed!" exclaimed Erskine, an expression of apprehension in his eyes.

"Yes. It is that you are Sam Erskine's son instead of mine."

The general manager, turning slowly to and fro in his swivel-chair, gazed thoughtfully at the floor as he continued:

"And yet, my boy, I think I can easily forgive you that, for you have in your veins the blood of one of the bravest and most honest men I have ever known."

Warrington nervously tapped on his desk with a penholder.

"When I say that in the service of this company there is no position that I can offer you, I speak the truth. At the

time I wrote to you, asking you to come to Chicago, I designed offering you a good position. Much has happened since then, however, and in place of the friend who was preparing to help you, you now find a discredited man whose career is about to end in disaster unless—"

An expression of blank astonishment came to Erskine's face, but in a moment it was gone.

"Unless," the general manager continued, leaning forward, "unless I can enlist in my personal service a man whom I can trust implicitly, and who possesses qualifications which will enable him to pursue, without exciting suspicion, a certain course of inquiry that may lead him into several departments of this railroad."

Warrington tossed the penholder back on his desk and drummed nervously on the arms of his chair as he went on:

"Until you entered this room just now, I was at a loss to know where to turn to find a man who was capable of meeting these requirements. It now occurs to me, however, that you possess the necessary qualifications. Your course at Altoona has familiarized you with various kinds of departmental work, and you have the additional advantage of being unknown to all the employees of this company except your father. In the course of your quest you probably will have no occasion to meet your father, and it will be in your interest, as well as mine, that you say nothing to him concerning the task which I am about to ask you to undertake."

"My relations with you are to be regarded as secret, then?" the young man asked.

"They must not be known to any person other than ourselves."

Erskine nodded, and leaned back in his chair. The general manager rose and locked the door.

"As briefly as possible I will describe to you the situation that now confronts me," he began. "Eleven months ago the Dunbar Construction Company, of Denver, deposited in the office of the treasurer of this company bonds valued at five hundred thousand dollars, which were to guarantee the performance of that company's contract to construct for us a branch line from Cardis to Redmount, in the State of Wyoming. That work is

now almost complete, and in another month the Dunbar Company will, as a matter of course, make a demand upon us for the return of the bonds. You will see, therefore, what a predicament we are in, when I tell you that the bonds are no longer in our possession."

Erskine looked more intently at the careworn face before him.

"The bonds are lost?" he asked.

"Stolen," replied the general manager grimly. "As nearly as can be learned they disappeared from the vault of our company's treasurer about five days ago."

"Is any one under suspicion?"

"Yes."

"Some one employed in the treasurer's office?"

"Yes. The suspect is a young man who, living beyond his salary and the allowance made to him by his father, some months ago became involved in a series of unfortunate speculations. As a result of these speculations his father was compelled to pay nearly a quarter of a million dollars to the young man's creditors."

"The son failed to take to heart the lesson taught by his unfortunate experiences. Taking advantage of his restored credit, he again plunged into debt—this time as a common gambler. On the very day that this fact became known to his father the bonds were missed from the vault of the office in which he was employed, and the combination which controlled the lock of the vault was known to him."

"He protests that he is innocent, and thus far he has been allowed to continue to work in the office. Detectives have been put to work on the case, but—"

The general manager paused and looked meditatively out of one of the windows.

"But there are certain incidents in connection with the affair that have not been brought to their knowledge," he added. "If you will undertake the task, you will be better informed."

"Am I to understand, then, that I have to discover who it was took the missing bonds?" Erskine asked.

"You are to find the bonds and cause them to be returned to the vault," the general manager replied. "The bonds are all that I will require of you. So far as I am concerned, you have *carte blanche*

to get them by fair means or by foul, and I will give you all the aid that lies within my power to give.

"If you fail, it will be quite unnecessary for you to trouble me with any explanation of your failure. If you do get them, you are at perfect liberty to keep to yourself all knowledge of the means which you may find it necessary to employ. It is not essential that I be informed of the name of the thief. His identity will be entirely your affair—and his. Is this much clear to you?"

Erskine's face wore a puzzled expression, but it was without hesitation that he answered:

"Perfectly."

"And I hope that it will be equally clear to you that you must carefully guard the fact that you are acting as my representative in the matter," Warrington went on. "I will supply all funds that may be necessary, and if it should be found expedient to have you represent yourself as an employee of this company, from time to time, I will find means to have you do so. But, after midnight to-night, you are, under no circumstances, to ask me for advice concerning the manner in which you are to proceed.

"You must map out your own campaign, after you hear from me an account of those incidents concerning which the detectives have not been informed. You must regard those detectives as working against you, for if they, instead of you, recover the bonds, you will have failed in your quest. In view of the fact that these detectives report to, and receive instructions from, certain officials of this company, we may regard them as working in the light.

"You must be the man in the dark, depending only on your own resources, and making no report to any one. If you work into an embarrassing position, and find yourself in deep water, you must not call on me to aid you. You must swim or sink—alone."

Fred Erskine abstractedly placed his hat on his head; then, thrusting his hands into the pockets of his trousers, he rose and slowly paced to and fro. The general manager leaned back and clasped his hands over one knee and surveyed his visitor speculatively.

"You are giving me a pretty big order,

Mr. Warrington," said the young man moodily.

"Pretty big," assented the general manager, with a nod.

"Would it not be better to entrust a matter of this nature to a professional detective?" Erskine asked.

"No," Warrington answered shortly. "The professional detective is too well trained in the betrayal of confidences to have a matter of this sort entrusted to his keeping. The manner in which you have acquitted yourself in college and at Altoona indicates that you have more than the average degree of intelligence. In addition to this, you have the eyes and chin of your father, and these are sufficient to assure me of your honesty and grit.

"Moreover, you will have a personal interest in the matter that no professional detective could feel. If you succeed, I shall become president of this road; and, next to your father, I will prove to be the best friend you have on earth. If you fail, another month will find me a ruined man, who will be unable to offer any sort of aid to the son of his old friend."

For some time both were silent; then Erskine spoke.

"You are putting it to me pretty strongly, Mr. Warrington," he said.

"If you hesitate, perhaps I can put it to you still more strongly," the general manager replied.

The young man, ceasing to pace the floor, stopped in front of Warrington, and looked at him curiously.

"Who is the man who is under suspicion?" he asked quietly.

There was a pause; then, in a low, hard voice, the general manager answered:

"Joe Warrington—my son!"

CHAPTER III.

Fred Takes a Job.

THE color fled from Fred Erskine's cheeks.

"Your son?" he faltered.

Warrington nodded, and his gaze fell.

"But he will clear himself—of course," the young man said.

"I hope so," Warrington replied; "but, whether he does this or not, the

package of bonds must be obtained by you, and thirty days must suffice for the accomplishment of the task. Thus far the knowledge of their loss is supposed to be restricted to four officials of this road, and the detectives who have been put to work on the case.

"How many detectives are engaged, I do not know, but I believe there are no more than three. One of them, however, is Glen Streyer, an exceptionally successful private detective, who has been specially engaged by Mr. Burbridge, the president of our company.

"Streyer seems to be acting independently of the others, who are regular railroad detectives, working under the direction of Mr. Stanwood, our treasurer, from whose office the bonds were taken. One other official than these I have mentioned is informed concerning the circumstances of the theft. This is Lewis Yarnell, our vice-president. With none of these, however, are you to have anything to do."

Ersine, removing his hat, sank into a chair and looked at Warrington dubiously.

"Then it is scarcely probable that I will have access to the treasurer's office?" he said.

"It is unnecessary that you should pursue any part of your investigation there," the general manager returned.

"But—"

"I have said that I would acquaint you with certain incidents, concerning which the detectives know nothing," Warrington explained. "The facts, as known to the detectives, are these: The bonds were issued by the South Weidham Electric Company, the Pan-American Trading Company, and the Fairfield Steel Corporation. All were contained in two black tin boxes, which were placed on one of the shelves of the vault.

"The boxes were found on the shelf, but their contents were gone. How the bonds were taken from the vault is still a mystery. The vault combination was known only to two men—Stanwood, our treasurer, and my son. It was Stanwood who discovered the loss, and he at once reported the matter to President Burbridge."

"The bonds are negotiable?"

"Yes."

"And their loss has not been reported to the companies by which the bonds were issued?"

"No; and I think it will not be difficult for you to understand why no such report has been made. Only as a last resort must publicity be given to the matter. One of two men was guilty either of deliberate theft, or of almost criminal negligence, in failing to keep the vault properly locked.

"Of these men, one was the treasurer of the company, and the other was the son of the company's general manager. More than this, it is, for many reasons, desirable that the Dunbar Company should not know of the loss, if it is in any way possible for us to recover them."

Ersine shook his head doubtfully.

"Under these circumstances the detectives are likely to have little outside help in their attempts to discover a possible transfer of the bonds," he said.

"True," replied Warrington. "The task will, indeed, be a difficult one, if they are honest enough to adhere to the letter of their instructions. Glen Streyer is crafty, however, and I do not regard it as at all improbable that, taking the bit between his teeth, he will invoke the aid of the companies that issued the bonds, without informing his employers of his action."

"And if Streyer recovers any, or all, of the bonds, he—"

"He will deliver them to Burbridge, in whose interests he is working. This is what we must prevent. The bonds must be returned to the safe without Burbridge's knowledge."

Again, Ersine rose and began to pace the floor. The expression of perplexity on his face was momentarily growing deeper.

"It seems to me, Mr. Warrington, that you are assuming that the bonds were indeed taken by your son?" he said thoughtfully.

The general manager cleared his throat and hesitated.

"My son denies that he took them, of course," Warrington answered dryly. Then, after another pause, he added: "But if Stanwood took them the result would be the same."

"The result would be the same?" repeated Ersine incredulously.

"Precisely," replied the general manager. "And now I will tell you of the incidents which the detectives are not taking under consideration. First, then, Burbridge would be ousted from the presidency of this road, and I would be elected as his successor at the next annual meeting of the stockholders, six months hence, if this unfortunate affair had not happened.

"If it is proved that my son did, indeed, take the bonds, I will be required to make good their value. I cannot do so. The result will be that I, a discredited man, will have to sever my relations with this company. Now, Stanwood is a mere tool of Burbridge's, and would fall with Burbridge. It was in accordance with a suggestion made by Stanwood that my son was made his assistant."

Erskine's face brightened. "Then it is possible that some sort of a job has been put up on your son by Burbridge and Stanwood?" he said.

"It is possible," Warrington assented. "But if this is so we will have to prove it, and in such a case we may be pretty sure that the bonds still are in the possession of the original thief. On the other hand, if my son took them they probably are in the hands of some other person to whom they have been given as security for a loan. It will be necessary, therefore, for you first to learn by whom the bonds were taken, then to find them and return them to the vault."

Erskine shook his head doubtfully. "It is difficult for me to know where to begin," he said. "Moreover, I can't quite see how my knowledge of railroading is going to help me."

"If the bonds were taken by Stanwood, you will have to work among certain of his fellow conspirators, who are employed in various departments of this company," the general manager explained. "That a conspiracy against me does exist there can be no doubt. If the thief was my own son, you probably will have to pursue another line of inquiry, and it is in connection with this that I will now tell you of the second phase of the affair of which the detectives are ignorant."

"Then it will be necessary for me to work also on the theory that the bonds were taken by your son?" Erskine asked.

"Certainly, if you think that by work-

ing out such a theory you can recover the bonds," Warrington replied, somewhat petulantly. "If you deem it expedient to take this view, it may be well for you to know that I have some reason to believe that a certain boon companion of my son's has become aware of the fact that the bonds have disappeared, and that my son is suspected. This fellow is Charles Montresor, an impecunious Englishman, who is a nephew and the heir of Lord Mordale, with whom he has quarreled.

"Montresor sometimes visits my daughter Louise, and it was to Louise that, the other evening, he casually mentioned that Joe would do well to get out of the city for a while. Louise asked me what it meant. I did not tell her. Since then all my efforts to find Montresor have been vain, though I am assured that Louise and her mother—neither of whom respects my authority—see the man from time to time. It is through Louise that you may meet Montresor."

"But I—I—" the young man stammered.

"You shall take her to the opera to-night," said Warrington. "I will introduce you to her if you call at my house to-night sharply at seven. Meantime, I will give you this."

The general manager took from his pocket a wallet, from which he drew several bank-notes of large denominations.

"Here are three thousand dollars," he said. "In the course of your quest you may spend money as freely as you like. When you require more communicate with me at once, signing the name 'Belleville' to your letters or telegrams. But in your communications to me be careful to make no reference, of whatever nature, to the progress you are maybe making in your work. I have told you that after to-night I shall have no suggestions of any sort to offer you."

With shaking fingers the young man thrust the envelope into the inner pocket of his coat. The general manager smiled grimly.

"I am to infer, then, that you will undertake the task?" he said.

Erskine looked irresolutely out of the window, and Warrington, leaving the desk at which he had been seated, held out his right hand. The young man grasped it.

"In view of all that you have said, I don't quite see how I can decline it," he answered moodily.

"To-night, at seven, then," said the general manager.

"To-night—at seven," the young man muttered.

Then, with bowed head and unsteady steps, he left the room. The rays of a warm June sun were shining on the city pavements when Erskine again found himself on the street, but he felt as if the darkness of a stormy, moonless night was closing in around him.

"If I should fail?" he mused.

CHAPTER IV.

A Red Signal Flashes.

WHEN the young man reached his hotel, he was dominated by a feeling of anger and resentment. Why had Warrington committed such a task to him? He had sought no such employment as this, and in his education and training there had been nothing to fit him for such an undertaking. In a perfectly straightforward manner he had applied for a post in the service of the C., S. L. and W. Railroad, and he had received a commission as a spy. Once he put on his hat and turned to the door, resolved to refuse the task. But he thought better of it, and turned back.

At length, however, he came to view the situation in a different light, and all feelings of resentment left him. He remembered that, without Warrington's aid his father scarcely would have been able to have given to him the education with which he was now equipped. And Warrington's present situation was desperate. Surrounded by foes and deceived by his own son, the general manager knew not whom he could trust.

For more than two hours, the young man reviewed the situation carefully. At the end of that time, he inclined to the belief that Andrew Warrington had misjudged his son, and that the bonds were taken by one of the conspirators who were working in the interest of President Burbridge.

Erskine was young and vigorous, and, despite the mental strain to which he was subjected by the terrible responsibility

that had been forced upon him, he ate a hearty luncheon, and in the afternoon he took a long stroll in Lincoln Park. Shortly before six o'clock he donned his dress suit and went down to the hotel restaurant for dinner. Then he went to the Warrington home on Lake Shore Drive. He was conducted to the library, where he found the general manager awaiting him.

It was a warm evening, but Warrington was seated in a chair which he had drawn in front of the empty fireplace. As Erskine entered, the general manager turned his head, but did not rise.

"Just seven—to the minute, eh?" he sighed. "Well, boy, how have you been spending the day?"

"In my room and strolling in the park," the young man replied.

Warrington nodded, and, leaning back in his chair, he pressed his hands to his eyes.

"Mrs. Warrington and my daughter are still at the dinner-table," he said. "When they leave it, my daughter will meet us here."

"Is Miss Warrington willing that I should accompany her to the opera?" Erskine asked.

"I have not spoken to her yet upon the subject," the general manager explained. "You will be her escort, however. Though I told you that neither my daughter nor her mother respects my authority so far as their friendship for Montresor is concerned, I am, in all other matters, master in my own house. I have said that Louise would accompany you to the opera to-night. She will go."

Erskine quailed slightly as he heard the grimly spoken words of his host, for it was apparent that, for some reason or other, the young woman was to be compelled to go to the opera against her will. Under the circumstances, it was more than probable that, from the first, he would inspire her with feelings of dislike and distrust. And yet her father had told him it would be through her that he would meet Montresor, the man who had so much influence over her, and yet who was scrupulously keeping out of the way of Warrington.

The general manager seemed to be reading the thoughts of his guest, for after a short pause, he said:

"Fred, you've got to get close to Montresor—and his friends. Whether the bonds were taken by my son or by Stanwood, one thing is clear to me: Montresor knows where they are, and holds the key to the situation.

"Just how he figures in the matter, I do not know. This is one of the things that you must learn, and in order to learn it you may have to play the rôle of a blackguard for a while. Go as far as you like in your abuse of me.

"You have applied for a position in the service of the C., S. L. and W., and I have turned you down. This is your cue. You are disappointed and vindictive. Get into the conspiracy against me, if you can. The bigger rogue you may seem to be, the better will be your chance. Begin with my daughter. In her interest and mine, win her confidence and, when necessary, betray that confidence, in order to save her from herself.

"My flesh and blood seem to be in league against me. Why it is I do not know, but, for the present, we must regard my son and daughter as our enemies—enemies to be taken off their guard whenever it is possible to do so. Is all this clear to you now?"

As Erskine nodded gravely, his lips were compressed, and every trace of color had left his face. Had he permitted his lips to open they would have given expression to his thought:

"It is no man's game—this, if one must fight a woman!"

"If you see Montresor to-night, it is well that you should be able to recognize him," Warrington went on. "In order that you may do this, I will give you one of his photographs."

As the general manager spoke, he rose and crossed the floor to a little cabinet that stood at one end of the room. Opening one of the drawers, he took out a photograph which he handed to Erskine.

As Erskine looked curiously at the picture, he saw the portrait of a young man about thirty years of age, with a grave, handsome, and resolute face, and slightly curling hair. The mouth was shaded by a heavy dark mustache, and the broad shoulders seemed to be indicative of extraordinary physical strength.

"Put it into your pocket," directed Warrington, in low, sharp accents.

Scarcely had Erskine done this, however when he was startled by the quiet, clear voice of a woman.

"You wish to see me, father?" it asked.

"Yes, Louise. Come in," Warrington replied.

Erskine, who had risen, was now gazing at a young woman who stood in the doorway that communicated with the hall, and as he looked, a feeling of unrest that was akin to fear stole over him.

The newcomer appeared to be about twenty-two years of age, and rather above the average height of women. Her features were admirably molded, but though the dark eyes were filled with light and her cheeks were suffused with color, there was something in her presence that was suggestive of coldness. Despite the girlish grace which invested her, her figure was that of a splendidly developed woman.

The evening gown she wore left bare her white arms and shoulders, and clung to her in a manner that revealed the lines of her beautiful form.

Her glossy, luxuriant hair was black, and from its coils came the gleam of precious stones.

As the young woman slowly advanced into the room, she turned her face toward Erskine. For a moment the young man regarded her with admiring eyes, then, as he remembered the part he was to play, his gaze fell and a pallor overspread his face.

"Louise, I want you to meet Mr. Erskine, the son of an old friend whom I have not seen for many years," said Warrington. "Fred, this is my daughter, Louise."

As Erskine bowed, without speaking, the young woman smiled slightly and inclined her head. A moment later she turned to her father.

"Have you ordered the carriage?" she asked.

"Yes," Warrington replied. "Unfortunately, however, I shall be unable to accompany you to the opera to-night. I have asked Mr. Erskine to take my place, and he has expressed his willingness to do so."

Starting slightly, Louise turned to Erskine. The smile faded suddenly from her lips, and as she looked inquiringly at the young man whom she now met for

the first time, she paled a little and her eyes wore a strange, searching expression.

"Mr. Erskine is very kind," the young woman said coldly.

"The curtain rises at eight, so I have ordered the carriage to be at the door at half-past seven," Warrington said.

Louise turned again to Erskine. "I will be in the drawing-room at half-past seven," she said perfunctorily.

Then she crossed to the door and left the room. Warrington, with quizzical eyes, watched his daughter until she disappeared in the hall, then, with a slight smile, he turned to Erskine.

"My pretty kitten thinks she has found a mouse," he said with a dry chuckle. "Now have a care, my boy, and keep your eyes open for Montresor. Something tells me that he will cross your trail to-night. Meet him if you can, and win his confidence and hers.

"Remember that the key to the mystery of the affair may be in this man's hands, and until you find that key you will be unable to find the missing bonds. That miserable scoundrel has cast some sort of a spell over the members of my family. Whether he is working in the interest of Burbridge or in his own, I cannot tell. But get the bonds, lad—get the bonds. In God's name, get the bonds!"

The voice of Warrington broke, and sinking into his chair he hid his face in his hands.

"I'll do my best, sir," Erskine answered wearily.

For several minutes the two men sat in silence, then Warrington rose deliberately and, walking over to Erskine, he laid a hand on his shoulder.

"Until you succeed in your quest, we must not meet again," he said. "After to-night you must not visit either my house or my office. If my daughter is willing to see you again, you must meet her at those houses which she is in the habit of visiting. I have told you that, so far as this case is concerned, you must work as a man in the dark. You must do more. You must run your train without lights, and never allow any man or woman to suspect that you are a friend of mine."

As Erskine rose, Warrington grasped his hand. "The drawing-room is across

the hall," he went on. "Go there now and wait for Louise. When you return from the opera, make no attempt to see me. Good-night."

They shook hands; then, with a heavy heart and hesitating steps, Erskine made his way to the drawing-room. There, seating himself, he fell prey to a series of gloomy reflections.

How little Warrington had told him, after all! What was the reason for this extraordinary lack of confidence between this strange man and his children? What was at the bottom of the mysterious game which this man, Montresor, seemed to be playing? How was he to meet and win the confidence of the Englishman, and, having won that confidence, how was he to recover the bonds?

"I am ready, Mr. Erskine."

The young man started violently as these words fell upon his ears, and a moment later he was looking into the lustrous eyes of Louise Warrington, who stood a few paces from him and was in the act of drawing on her gloves.

"Ah, pardon me, Miss Warrington," Erskine stammered, as he rose hastily. "I did not hear you enter, and—"

"The carriage is at the door, I believe," Louise interrupted coldly, as she raised her opera cloak to her shoulders.

Like a man in a dream, Erskine accompanied the beautiful young woman to the street and helped her into the waiting carriage. As he turned to the coachman, Louise said quietly:

"The man has his instructions."

Erskine entered the carriage, closed the door, and the carriage moved away. For several minutes the occupants of the vehicle sat in silence. Erskine was the first to speak. With a little laugh, he said:

"I am afraid, Miss Warrington, that you will find me a badly informed escort to-night, for I do not even know the name of the opera to which your father had planned to take you."

"It is 'Faust.'"

"Then we are going to the Auditorium, of course."

"No," the young woman answered coldly.

"But I thought it was only at the Auditorium that grand opera is presented in Chicago."

"True. It is at the Auditorium that 'Faust' is to be presented to-night. But we are not going there."

Erskine started. The interior of the carriage was so dark that he was unable to see the face of his companion, but into his mind's eye there came a flash of ruby light—the flash of a danger signal, swung by the hand of Fate!

"And why?" he asked in a voice that was almost as cold as hers had been.

"Because I have an appointment."

"Indeed!" he murmured.

As he spoke he became aware of the fact that the cab was turning sharply to the right.

"Where are we going now?"

The young woman did not answer, and for several minutes the silence was unbroken. The carriage shortly afterward made another turn, and Erskine became aware that it was headed for the dark shades of Lincoln Park.

The young man's feeling of amazement had given place to anger for a time, and now anger was succeeded by curiosity. What sort of an appointment might this singular young woman be expected to have at this hour in the park?

It was clear that Miss Warrington had been right when she said that the driver had received his instructions, for he drove in the manner of one who had traversed this route before and was perfectly at home among the dark, winding roadways of the great city playground.

The stars were shining, but there was no moon. Erskine, however, made out the dark outlines of the Grant monument shortly before the carriage drew up beside a clump of trees.

"Now, leave me," please," Louise said shortly, when the carriage stopped.

"Not here," Erskine replied, in a tone of decision. "Unwilling as I am to intrude upon you, I must decline to leave you until I see you to the door of your father's house."

"I fear that I cannot longer look for

protection in my father's house," Louise retorted bitterly, "when it was from that house that my father sent me with a miserable hireling spy."

"A spy!" Erskine faltered.

"Yes, and now that you know that I have found you out, will you be good enough to leave this carriage?"

"No," the young man muttered.

"Then I will be compelled to do so," and, as she spoke, Louise Warrington rose, thrust open the door and stepped out. Erskine followed her.

Scarcely had the young man's feet touched the ground when he saw a dark figure advancing toward him from among the trees. It was the figure of a man.

"Mr. Erskine," the newcomer called.

"Well?" Erskine asked.

"A word with you, if you please."

Erskine, leaning forward, tried to see the features of the man who had accosted him, but he was unable to do so. After a moment's hesitation, he moved slowly in the direction of the stranger, who was advancing to meet him. As each halted, about five feet away from the other, the stranger spoke.

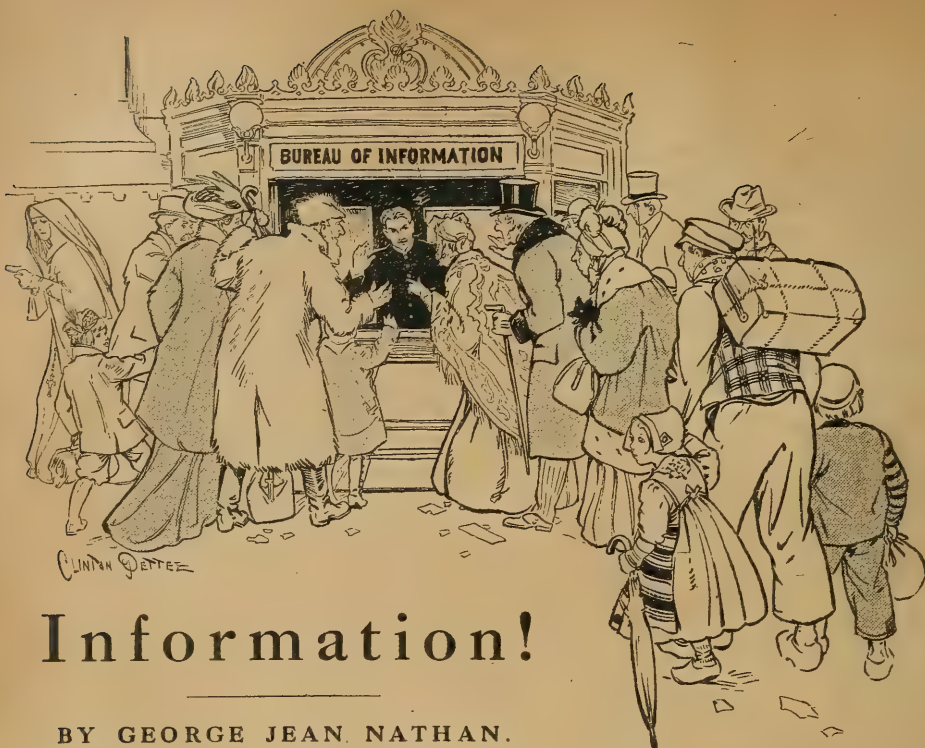
"I am sorry to have to ask you to give me the photograph which Mr. Warrington gave to you a few minutes ago," he said, and Erskine saw that the speaker was himself the original of the photograph—Montresor!

Erskine was about to speak when the movement of carriage wheels behind him caused him to turn his head. Louise Warrington had disappeared, and the carriage that had brought her to the spot was now moving rapidly away!

The astonished young man was on the point of yielding to an impulse to follow the departing vehicle when a heavy blow, landing behind his left ear, sent him staggering toward the clump of trees from which Montresor had emerged. He did not fall, however, and he was in the act of starting toward his assailant when a blow from behind felled him to the ground, and he lost consciousness.

(To be continued.)

A flat wheel makes more noise than a true one, but it doesn't do its work as well.—Reflections of a Hog-Head.



Information!

BY GEORGE JEAN NATHAN.

ONE of the busiest bureaus of a railroad system is the Bureau of Information, and the men who operate them must know a great deal more than the answer to that oft-repeated query, "What time does the ten o'clock train leave?"

They must be able to direct a passenger from a given point to some speck on the map where railroads appear to be unknown quantities. They must be well up in rates, and they must know every point that their line touches and the principal connecting points with other lines. They are the human time-tables and guide-books—for they are always correct.

Some of the Queer Queries Hurlled at the Patient Individual Who Is Supposed to Reply to Questions Relating to Railway Transit and Nothing Else.



THE least spoken of and the most spoken to department of a railroad is its bureau of information. But it is a busy place, nevertheless. It opens up for business early in the morning, and keeps open until late at night. And it takes a pretty level-headed man to deal out the information.

"Oh, yes," says the head of one of the railroad information departments in New York, "they do ask pertinent questions about trains, but it is a perfectly fair and honest statement when I say that the odd, fantastic, and downright foolish questions that are put to us in the course of a day exceed the sane questions by a ratio of almost three to one.

"Some days it is less than other days, and when we are running excursions a whole lot more."

The chief clerk of the bureau of information of the New York Central lines—a bureau on which the company spends many thousands of dollars a year—is Edward J. Bradley, known in railroad "information circles" as the premier rapid-fire question answerer.

He has been serving in his present capacity in the information-booth in the Grand Central Station for more than eight

quiries we answered from January 1 to June 1, 1909, for instance, was exactly 97,642, you can get a fair idea of the tremendous number of information-seekers whom we have to accommodate.

"If you think the old one, asking at what time the two o'clock train leaves, is a poser," continued Mr. Bradley, "listen to some of these.

"An elderly lady hurried up to the window and wanted to know if the ferry at Garrison - on - the - Hudson landed at the foot of the hill.

"Another lady, very much younger, said she intended to leave for Boston by boat three nights later, and wanted to know whether the weather indications were good for that night. Questions as to weather are put to us every day, the one about moonlight-nights being the most frequent.

"Do they check dogs in the parcel-room?" is another favorite, as is also the inquiry as to whether or not the engine-bell rings loud enough to disturb the slumbers of the passengers in the sleeping-cars.

"Stand around for a while, and you will certainly hear one or the other. On the day I have in mind, a man rushed up to the window, told me he was going to Chicago on the Wednesday following—two days later—and asked me whether he would surely be able to make connections with a certain train for the West. The connecting time was twenty minutes, and I told him I thought he would be able to. 'Think won't do!' he roared at me. 'I must know positively!'

And when I told him I could not tell him positively, he departed in a furor and said he would report me for incompetency.

"Speaking of similar threats, on that very same day I was actually reported to my superiors by a woman, who wanted to know whether there was a special service at Grace Church that afternoon. When I answered that I did not know, she exclaimed: 'I am a regular commuter on this railroad, and its information bureau ought to be able to give me the information about the city that I want.'

"The case of this woman is not so very much different from that of a lot of other persons—you would be surprised at the



years, and during that time has come into contact with hundreds of inquirers of all kinds. He is aided by Albert Jackson, whose ability to speak ten different languages is frequently useful.

"A layman," says Mr. Bradley, "would hardly believe me when I say that we have to answer—or, rather, are supposed to answer—hundreds of the most outlandish questions. There are about a dozen persons constantly at the windows on the hunt for information, and some days this number runs as high as fifty.

"In addition to this, when it is remembered that the number of telephone in-

number—who believe that the information bureau is for information on any and all topics.

"Men come up to the window, ask me for information on prize-fights or baseball percentages, and try to get me to decide bets for them. A man once asked me to decide a bet as to the significance of the name of the planet Mars, while another wanted to know, for a similar purpose, how many ties there were on the tracks between Scarborough and Fishkill. The parties had agreed on me as the arbiter.

"In addition to inquirers such as these, every hour or so, some one will come to our booth and get very angry when we refuse to sell him stamps. One woman who approached the window begged and begged me to sell her a stamp because, as she said, she had to mail an important letter on the next train.

"When I told her that we did not have any stamps to sell, and could not sell them if we did have them, she left in a huff. She furthermore refused to go across the station, where I directed her, to get the stamps, saying as she swished away that she would henceforth always patronize a railroad that *did* sell stamps.

"Once a man wanted to punch me because I would not stop to tell him in full just how the station was heated. I told him that the heating-pipes were placed under the benches, and, after he had failed to locate them in their concealed position, he came back and told me I had better not try to joke with him or he'd knock my head off. Another man wanted to know how the big station clock was worked, and still another, why there were not more clocks around.

"If a train is late, fully a score of people will rush up to the booth and want to know if it will make up time, and how much. Every day a number of prospective travelers inquire as to whether children can play their games in the Pullman smoking-rooms. Others are eager to learn the best play to go to see when they have arrived at their destination, and there are some who ask for a book to read.

"One out of every hundred wants to know why it is that I cannot take care of his parcels for him instead of sending him to the checking-room. Every little while somebody who has just arrived from out of town asks me to call a cab for him.

"One woman asked me if I would arrange to have a cab meet her when she arrived in Buffalo. I told her that she would have no difficulty in getting a conveyance; but she insisted that it might be raining, and that she did not care to take any chances. When I finally convinced her that I could not do as she wished, she said she thought I might be obliging and telegraph.

"Another woman asked me to tell her how far it was from the Union Station in Cleveland to a certain house she wished to get to in another part of that city. I estimated the distance, but she was dissatisfied because I was not able to tell her the exact number of blocks."

There are many seekers after information who resort to the mails, and the questions they propound are no less wonderful than those asked at the station. P. V. D. Lockwood, of the New York Central lines, regularly receives these communications. Each of these letters, no matter how difficult the query, is answered.

One writer recently asked Mr. Lockwood if the railroad company could help him locate a long-lost relative who had been a regular patron of the road, while another inquired if he might be allowed to buy a seat in the Pullman for his dog.

A woman wrote not long ago, asking that a porter be sent with her to Garden City. She said that she did not know whether the line was a direct one or not; but, if the company sent a porter along with her to look after her luggage, it would not matter. Otherwise, she would travel over another road whenever she had occasion to.

A letter received from a man asked if the seats in the day-coaches were sufficiently wide apart to allow him to stretch his legs if his suit-case were placed in front of him. Another was anxious for information as to whether he would be allowed to practise singing in the Pullman smoking-room during the run to Chicago. He stated that he did not wish to lose a day in his effort to cultivate his voice.

A woman wrote recently and asked what class of people would be traveling on a certain train to the West in a week.

Another wanted to know if she would be allowed to carry a portable bath-tub with her, and have it set up in the Pullman dressing-room.



The Pennsylvania's Conquest of New York.

BY ARNO DOSCH.

WHEN we published our first article on the Pennsylvania Railroad Company's new passenger station in New York City, over three years ago, the building existed only in architects' drawings and blue-prints. Now the station stands in beautiful and classic outline, like the embodiment of a dream whose fulfilment has been long awaited. And yet, for a work of such a stupendous nature, the accomplishment has been miraculously quick. If you would realize what a stupendous task it has been, and still is, you can get an idea of it from the following article.

How a Railroad Bought Twenty-Eight Acres of New York City, Bored Ten Miles of Tunnels, and Is Spending \$100,000,000 Just To Run Its Tracks into the Metropolis.

CASSATT'S dream has come true. New York City is now an asset of the Pennsylvania Railroad. Straight across the most thickly populated and most valuable island in the world the Pennsylvania has shoved its underground tubes, and in the very middle has planted its gigantic station capable of handling half a million people a day.

Cassatt, who made the sign of the Keystone stand for perfection in railroading, was president of the Pennsylvania, and dreamed for it wonderful, almost impossible things. He sat over in his office in Philadelphia and watched the New York Central, with its great station and many lines, carry off the cream of the New York traffic because it was easy to reach.

He saw his own lines stopped at Jersey

City, with the Hudson River between, and nothing with which to win traffic from Manhattan Island except ferry-boats, slow and uncertain devices, starting from the ends of narrow streets, down which the passengers crowded, dodging the heavy trucks of the water-front. His road was enormously handicapped. No matter what it cost, he saw that he must remove the disadvantage.

A Dead Man's Dream.

So he dreamed of eliminating the barrier and making of Manhattan Island a part of the mainland by sending his trains bowling under the river into the very heart of the city. Nor was that all of the dream.

He could see how convenient and profitable it would be to make a great

seaport at Montauk Point, the farther end of Long Island, dependent upon his railroad. With no other line touching the new port, the Pennsylvania could fetch and carry for whole fleets of steamers, and keep its tracks busy with freight-trains bringing the produce of the South and West.

As to the seaport, he did not look for it immediately, but he secured control of the Long Island Railroad, which owned the land at Montauk Point, and he planned four more tubes under the East River. Then he set about writing an epic in steel and stone, and made possible the greatest single project ever undertaken by a railroad. Unfortunately, he did not live to see it finished, but he died conscious that he had rounded out a full life with a marvelous climax of achievement.

Comparison with Panama.

It has been a surprisingly expensive undertaking. For lack of anything else to compare it with, it must rank with the Panama Canal, the opening of which is expected to mark an epoch in the progress of the world.

The canal is now more than half finished, and has cost \$128,000,000, while the Pennsylvania extension into New York, which is now about ready for use, shows on the auditor's books paid bills to the extent of \$100,000,000. The full force of these figures can only be realized when it is remembered how long the nation hesitated before it decided to spend \$300,000,000 to bring about a lasting benefit to the whole world.

One-third of that amount was paid out by a single corporation to secure a few miles of track into a city.

One hundred million dollars! It is difficult to conceive such a sum, baldly stated; but if some one had stood on the bank of the Hudson with its discoverer three hundred years ago, and had thrown a dollar into the river every minute since that time, he would still have several decades to go before he had got rid of such a pile of money. It took the Pennsylvania seven years.

But, expensive as it was, its builders knew before they started that they would get back all and more with it. There lay New York, the most fruitful field for

transportation companies in the country, but only tapped directly by one railroad. They saw that by cutting into the up-town district, which was having the greatest growth, the Pennsylvania could command a big share of this traffic.

A Safe Venture.

It was no experiment. The railroad was taking no chances. It could not lose. Every new form of locomotion which had ever been tried in New York, from horse-cars to the Subway, had always found all the patronage it could handle. Every ten years the number of passengers doubled.

Before taking final action, however, an investigation of the density of New York's population was made, and it was found to be eight times as great as any other American city, and more than three times as great as London. This indicated that future growth must be outward, making suburban traffic, and that the Pennsylvania was counting on.

With the various census figures to go on, the Pennsylvania directors forecasted a population of 6,000,000 in 1913, and considerably over 8,000,000 in 1920. It was merely a question where these new millions would sleep. They would practically all have to seek the suburbs. What suburb they chose, and by what lines they traveled, concerned the Pennsylvania.

The question of freight was also considered. Most of it now comes to New York on ferry-boats and lighters. The amount which crosses water in this manner is alone 100,000,000 tons a year, and of this the Pennsylvania handles 43,000,000. Bringing this directly into the city and across to Long Island would mean a saving which would in itself pay interest on the \$100,000,000.

Realizing the Dream.

Cassatt's dream had taken form by 1901; now it is realized. It consists of two single-track iron tube tunnels under the Hudson and four under the East River, forming almost a straight line from New Jersey to Long Island, the connecting tubes on Manhattan Island traversing Thirty-Second and Thirty-Third Streets from end to end. In the very center of New York the Pennsylvania depot

stands on twenty-eight acres of land, the biggest railroad station in the world.

The whole new system commences at Harrison, New Jersey, just east of Newark, where a large transfer station has been built. From that point a new double track, on an elevated roadway, makes a straight line across the Hackensack Meadows and directly through Bergen Hill, which forms the southern end of the Palisades.

Immediately beyond Bergen Hill is the Hudson, where the tunnels, without rising to the surface, plunge into tubes lying seventy feet below the bottom of the river. Coming up on Manhattan Island, the tracks multiply from two to twenty-one for the terminal.

Reaching Long Island.

The station itself faces Seventh Avenue, between Thirty-First and Thirty-Third Streets, and the tracks to Long Island pass out eastward under it in two twin tunnels, extending from Seventh Avenue, under Thirty-Second and Thirty-Third Streets, to the East River, gradually dropping to a lower grade until they enter the four single-track tubes at the East River, beyond First Avenue. Going under the river, the tubes come to the surface at the entrance to the big yard at Sunnyside, on Long Island, where connection is made with the Long Island Railroad.

The task of building this long subaqueous passageway was gigantic, and could not have been accomplished except in a day when methods worthy of giants are used. But even with all the experience which the engineers had had in tunneling under rivers, obstacles were constantly encountered which required immediate solution.

The work was planned more than ten years ago, but the cost was so great that the Pennsylvania hardly considered it safe to sink such a large sum at one time into an enterprise which could not be made to pay until it was completed. There was a movement afoot to have all the railroads entering Jersey City combine in building tunnels under the Hudson, but the others did not respond, and the Pennsylvania finally decided to do it alone.

After it had all been planned, two companies were formed to secure the neces-

sary privileges. The first of these, the Pennsylvania, New Jersey and New York Railroad Company, was incorporated February 13, 1902, and was empowered to build to the New Jersey line, which is half-way under the Hudson.

The Pennsylvania, New York and Long Island Railroad, incorporated April 21 of the same year, was to take up the work at that point and carry it the rest of the way under the river, across Manhattan Island and under the East River. These companies were a mere formality, and the whole task was handled by a special board of engineers, headed by C. M. Jacobs.

The great engineering problem solved, and the spectacular feat performed by these men, was the building of the mile-long tunnels under the Hudson River. The excavations within the city, while on an enormous scale, do not grip the imagination like the slender threads of steel and concrete working their way foot by foot through the soft mud until they met within half an inch of where they expected to be.

At the time these tunnels were commenced, in 1903, there were no others completed across the Hudson, and a long line of unsuccessful attempts since 1874 made the undertaking appear doubtful. In less capable hands it might have been, but in fact it proceeded without a hitch. Unexpected difficulties cropped up from day to day, but each was met and disposed of as soon as it showed itself.

An All-Important Choice.

There was a choice of three methods, all of which had been tried in other cities, notably London. These were: Building the tubes in sections and sinking them in coffer-dams, by the use of caissons, or by pushing the tubes forward from the inside behind shields. The most successful for long stretches of tunneling under water had been found to be the shield method, so that was adopted.

The principle behind it is the same as that of shoving two fingers horizontally through mud until they touch. The tunnels start out from both shores and meet in the middle. They make their way by pressing shields the size of the tunnel against the soft silt of the river-bottom and forcing it out of the way; or, when

necessary, taking some of it into the tunnel through the traps in the shields and carting it off through the portion of the tunnel already completed.

Care of the Crew.

As the shield moves forward, propelled by hydraulic pressure, iron rings the size of the tube, and from eighteen to thirty inches wide, are fastened one to another in a string, forming the body of the tunnels. The shield progresses continually beyond the last of these into the mud, preparing space for another, always leaving a space between the face of the shield and the last of the rings liable to cave in.

This is prevented by compressed air, which offers sufficient resistance to hold even soft mud in place. The use of compressed air makes the work very inconvenient on account of the constant attention to air-locks, but the danger from it to the workmen is not great when there is proper medical attendance. Rules for the use of air and provisions for the safety of the men were laid down by the railroad in every contract, and as the builders lived up to them there were no deaths from the "bends," which attacks men remaining for long watches under compressed air.

The work began with the sinking of two shafts, one on the Manhattan and one on the New Jersey shore, to provide starting-places for the tubes. The Manhattan shaft was excavated without trouble, but the one on the other side encountered difficulties which did not augur well for the whole enterprise.

Breaking Ground.

It was started in the fall of 1903, and during the winter was flooded by high tides, bursting water-mains, and heavy rains. The rock was of poor quality, constantly collapsing, and the sides caved in if not timbered immediately. But, by the expenditure of an unexpected amount of money, the shaft was in shape for work in the spring, and danger from water was eliminated by the introduction of an elaborate system of drainage.

The next step was to start the tunnels toward the river-bed far enough to admit of the shields being erected and the compressed-air being turned on. As the

shields were erected a considerable distance from the river, they were forced at first through rock, gravel, rip-rap, and even the stone sea-wall, men working ahead of the shield clearing the space.

During this first stage of the progress the nine trap-doors in the specially constructed shields were constantly open for the passage of the men, and the dirt and rock they removed, but as soon as they reached the line of the shore it was planned to close the doors tight and force the shields steadily ahead, pushing the semifluid mud out of the way.

In theory this worked out splendidly. All that was necessary was to use sufficient hydraulic pressure to lift the bottom of the river slightly and give passageway for the tubes underneath, just as a finger presses its unerring way until it reaches the tip of the other finger.

The Crawling Monster.

But, when it came to putting it into practise, it was found that the tube would not go in a straight line, as it should. There was no question about the power to push it ahead. The shield moved into the mud irresistibly, but it showed a constant tendency to rise to so marked a degree that it would not have been long before the tunnels came up in the bottom of the river. The more it rose the greater the tendency to rise.

The surveying crew was constantly on hand, however, to detect the slightest deviation from the line. Every time a new ring was set in place they took its position down to the thousandth of an inch, and that is no easy task in the foggy atmosphere of compressed-air.

They discovered this tendency immediately, and a way was found to prevent it. One of the lower doors in the shield was opened, and a certain amount of the pressure from below was removed by the silt which was taken in through it.

This became so important a part of the work that the tubes lying side by side and forging ahead in the same direction were worked one at a time, the idle one being used to carry off the refuse. When this was being done the shield of one would be driven until it had passed the other a short distance, and then the other resumed its activity.

This had a peculiar effect. As one passed the other it drew away and rose above the other, and it was all the engineers could do to keep them in line at such times.

Contortions of the Tubes.

Before the tubes reached the river mud the iron rings had a tendency to flatten, making them broader than they were high, but as soon as they reached the mud the tendency was exactly the opposite way. Out in the middle, however, they remained round.

When it came time for the tubes to meet, far out under the river, the surveyings showed such "precise record work" that it was decided to drive the shields directly at each other until they touched. In the case of both tunnels the faith was justified, as the tubes had not deviated in their course as much as half an inch.

The success of the tunneling depended very largely upon the shields, but at the time this work was commenced none had been designed which filled the requirements. To provide one which would answer all purposes devolved upon Chief Engineer Jacobs, and his assistant, James Förgie, and they made a design which proved so efficient that it has become a standard. In the main outlines it was not unusual, but in detail it was largely original.

It fit into the end of the tube like a cork in a bottle, being pushed forward by rams capable of exerting 6,000 pounds of pressure to the square inch. The power was exerted within the shield itself, which weighed 386,000 pounds and was twenty-three feet, or the size of the tunnel, in diameter.

What the Shield Is Like.

At the face, or most forward portion of the shield, was the "cutting edge," protected from above by a hood while in rock and gravel. The material through which it was passing was attacked from eight sliding platforms operated by hydraulic pressure separate from that which moved the shield forward.

Just below the platforms was a "bird fountain," or water trap, cut to catch the muck if it came too quickly. The

doors in the shield to permit of the passage of material and men had to be so constructed as not to hinder the work and yet to close promptly and make the shield "choke itself" if the men lost control of the material which they were working against.

As the material was removed the iron rings were placed. These came in segments, and were merely bolted together, the segments making air-tight connections. On the inside they were later strengthened by a two-foot coat of concrete.

The provisions for the maintenance of the compressed-air section at the shield involved two bulkheads, each ten feet thick, with heavy doors to permit passage. One of these was placed immediately behind the shield, and the other 1,200 feet distant.

Differences of Conditions.

While in the course of construction through the rock or gravel the tubes were well sustained, but as soon as they pushed their way into the mud, there was an immediate difference, bringing an additional strain on the tubes at the points where the change was made. This condition was even more pronounced where the tubes passed through the sea-wall with mud on both sides. To meet this extra strain steel tubes were placed at these points of danger.

The Manhattan cross-town tunnels, which start from the station on Seventh Avenue and end on Long Island, encountered difficulties which are not of so great importance in ordinary tunneling. The two used for west-bound traffic lie under Thirty-Third Street, and the two for east-bound traffic under Thirty-Second, and on their entire length are flanked by many buildings, some of them twenty stories and more high.

In building them, blasting powder had to be used with great caution, and, where the ground was soft, the timbering necessary to prevent cave-ins presented even a more perplexing problem. Special devices were invented on the spot to meet contingencies as they arose, and deep-sunk building foundations were often given a subfoundation without affecting the heavy pile of steel and stone above.

In fact, the tunnels did not make as much outward impression on the life of the city as the excavation of a foundation for an ordinary building. There were occasional shafts sunk, but most of the material was removed through the ends of the tunnels and dumped on scows at both ends.

Even New York Noticed.

As the tunnels approach the East River they connect with the four tubes crossing to Long Island. The construction of these was not unlike those under the Hudson, except that they were only half as long.

Of all this work the city saw nothing at all, but when it came to building the sunken terminal, the magnitude of the undertaking was too obvious to escape attention. Even in New York, where things are done on a huge scale and there is no limit to the audacity of enterprise, the Pennsylvania's operations outstripped anything that had ever been done.

Without consideration for the value of the property, it was decided that twenty-eight acres were needed for the handling of passengers and trains, and this in a city eight times as densely populated as any other American city. It meant the purchase and demolishing of four very large city blocks which had been built solid for years. Four hundred five to ten story structures crowded the space, but to the railroad they represented only so much brick and stone which must be got rid of with the greatest possible speed.

Treating the mass of buildings as if they were hills which had to be cut away, shaft heads were driven straight through them and great chunks were bitten out of the houses. Cars operated by electric cranes were always handy to dump the chunks into, and from that time the material was not touched until it was placed on scows.

Chunks of Manhattan.

When the buildings were all gone, the solid rock was excavated over the whole area to a depth varying from forty-five feet on the east end to sixty feet on the west end. It made a hole in the ground bigger than anything of the kind New

York had ever seen. To lay the foundation for the reception of the tracks and the station cost alone \$5,000,000.

The building proper, which covers half of it, has cost over \$15,000,000. As much of it is below as above ground and the proportions of it are so nicely balanced that it does not seem overlarge. Thirty-Second and Thirty-Third Streets west of Seventh Avenue were vacated to give it room.

It has a frontage of 430 feet with side walls 784 feet long. The tracks are forty feet below the surface of the street, permitting of three levels between the entrances and the trains.

The structure was built with one end in view, that of handling the crowds. The railroad looks for a business which would make even that capacious station crowded if it had not been so arranged that the incoming and outgoing throngs are kept away from each other.

World's Largest Station.

The main entrance is on Seventh Avenue and extends across half the width of the building, but all the front entrances lead immediately into an arcade forty-five feet wide, to give room for the commuters hurrying in and out during the rush hours. But the commuter who allows himself only half a minute to catch his train will have to wait for the next, as he has a thousand feet and two flights of stairs ahead of him.

A special subway runs from the baggage-room on the second level to the tracks below, and up and down this the baggage will be hauled by power trucks. The old familiar scene of baggagemen hauling high piles of trunks along the platforms will be done away with and they will be sent speeding to the baggage-cars before the passengers are permitted on the platform.

Big elevators for the handling of trunks have also been built, and, in spite of the enormous size of the room and the number of trunks, the organization of the baggage-room is so arranged that a traveler can rush in with his trunk in a taxicab with him and have it checked on the same train, even if he has only a few minutes to spare.

With the mammoth waiting and bag-

gage rooms on this level it hardly seems as if there would be room for anything else, yet the taxicab station is at the back, and in front lies the concourse, over 200 feet wide and 430 feet long. It joins the waiting-room to the west, affording an easy passage to the stairs which descend to the train platforms below. The concourse is also in the nature of a broad gallery overlooking the tracks, and is roofed far above by a train-shed of iron and glass.

In spite of the bewildering size, however, it will be easy to keep straight. At the head of each flight of stairs will be signs such as are used in any railroad station, indicating the destination and leaving time of the next train to depart from the platform below. Gatemen will, of course, be stationed at the head of each flight to examine tickets.

To facilitate traffic and save time both for trains and passengers, the tracks have been apportioned and commuters can always tell just where they will find their trains. Trains coming from the west of the Hudson will enter on the south and leave at the center platforms. Trains made up in the yards at Long Island for Philadelphia and the South and West, will stop to pick up passengers on the tracks next, and the northern side will be devoted to Long Island traffic.

The length of time necessary to empty and load trains has been figured down to a nicety, and no more will be allowed for a train than necessary. Incoming trains require but a minute or two, but it will take between five and ten minutes for out-bound trains, except in the case of some of the suburban traffic, which will fill almost as fast as they empty. Main-line trains will have their own tracks and will be given more leeway.

Segregated Traffic.

With the same end in view special entrances and exits are arranged so that Long Island commuters will not have to jostle those bound for New Jersey, and main-line passengers will have ample space to finish the last necessary details without having their way blocked by a swarm of people hurrying through the station. All the stairways are so built that they present themselves immediate-

ly before the passenger when he requires them, and even some one who has never been in the building before can race through it to catch a train without losing the way.

The main entrance is not the only one by any means. At every corner and street crossing which the building touches there are wide entrances and exits. There is even a passageway under the street from Thirty-Fourth Street. It is calculated that three-quarters of a million people could go in and out of the building every day without crowding or delay.

Carriages and motor-cars enter at the two corners on Seventh Avenue and descend by easy inclines to the middle level, where passengers must alight at the entrance to the waiting-room, and, crossing the waiting-room and concourse, descend on foot by the regular stairs to the trains.

The exits are separate from the entrances, and the incoming passengers will find themselves headed down long galleries which lead under the waiting-room to special elevators and stairways.

Looking Ten Years Ahead.

With such facilities for taking on and disposing of train-loads of passengers, it is expected that the terminal will be able to handle 1,450 trains a day. There is not enough traffic to make it necessary yet, but by 1920, when there is that extra four million to bring to the city and fetch home again every night, the station will be taxed to its capacity. At least that was the theory of the board of directors when they authorized the spending of \$100,000,000 on the New York connections.

When the whole system was about completed, it was decided also to operate suburban trains through the McAdoo tunnels, connecting at Marion, New Jersey, with the main line of the Pennsylvania.

The marvel of the great station and the thing which will be most commented upon will be its cleanness. No coal-burning engine will ever enter the station. Special electric engines have been made, and they will take all trains as far as Harrison in New Jersey and the Sunnyside yards on Long Island. Train equip-

ments will be entirely new. All the cars are built of steel.

It might seem as if New York were too large to be affected even by the building of the biggest railroad station in the heart of it, but there will, in fact, be a great deal added to the metropolitan air of the city by its presence.

From the passenger's point of view there is just one possible drawback to the new system, and few will ever care anything about it. New York, approached

by the river, has had one grand aspect—the great cluster of buildings seen from the river.

At night the lower end of the island appears to be a mountain filled with fire seen through many caverns, and those who come to New York over lines which must be content to empty their passengers into ferry-boats at Jersey City can gaze on this fascinating Arabian Night spectacle and get what consolation they can for the extra time it is taking them.

WHY ANIMALS ARE RUN OVER.

BY E. A. SPEARS.

They Seem to Have a Peculiar Instinct That They Can Run Faster Than a Train Can Travel.

WHEN Webb's Road, as it was locally called, now known as the Adirondack division of the New York Central, was first built through the woods, one of its wonders was the deer that got on the tracks and ran in front of the engines.

This happened not only at night-time, but during the day, also. The animals didn't know what to make of the mass of steel and wood thundering down upon them, and, after hesitating a moment, they would turn tail and flee before the oncoming train.

It often surprised the enginemen how fast these animals could cover ground. Frequently they were overtaken and hurled to one side by the pilot. Sometimes, however, they would jump to one side just as the pilot was about to strike them. Not infrequently, at night, the great headlight would keep a deer standing still in his tracks until he was struck down.

It seems to be the general rule for most animals to keep running on the track straight ahead of the engine. A fireman tells how he was going up the Rome, Waretown and Ogdensburg line (New York) during the summer, when he noticed a hound loping in front of the freight.

The train was not proceeding very fast, but it was catching up with the dog. As it came nearer, the dog increased speed and at length ran to his utmost. His ears flopped up and down, his tail rose and fell with every leap, as the freight kept creeping closer every second.

The dog kept to the track, notwithstand-

ing the ringing of the bell and the tooting of the whistle. Finally the engine was right upon the dog, and the last the fireman saw of him was his bobbing head just in front of the train. In a few moments more the dog was killed. He had run along for nearly half a mile, and something or other kept him to the rails.

Birds have a like instinct for keeping in front of a train, only they seem to have a strong desire to cross the track. Engineers and firemen have noticed, time and again, that when a flock of birds are flushed from between fences, they will follow parallel with the engine, at times almost for a mile in the endeavor to cross in front of it.

If they succeed in crossing, they quit following the train. Often they swoop up over it and through the smoke, when the dash in front fails.

When the train is going too fast, of course, they get left.


In the autumn, many birds migrate in the night, and they are then attracted by bright lights. It is likely that some of them are killed by the headlight, for firemen and engineers tell of finding blood on the heavy glass.

Insects, such as moths, often plaster the headlight after an evening run. Undoubtedly, insects are attracted to the light when it is a long distance away, and thus they get in the pathway of the train. At any event, the great headlights of locomotives become literally smeared and plastered with the bodies of the insects which fly at night.

WITH HIS FINGERS CROSSED.

BY HARRY BEDWELL.

Sammie McClaren Did Not Know Just How His Ride in the Lone, Light Engine Would End.

AMMIE McCLAREN said afterward that he knew it was his off day the minute he reached the top of the stairs leading to the chief despatcher's office. And after he had walked the length of the gloomy hall, he was sure of it.

So when he cautiously pushed open the door to the chief's little office, he crossed his fingers tentatively before venturing into the room. The inside of the office reassured him, however. It was a narrow little room, with a desk in the center.

Behind the desk sat the short, fat little chief despatcher, and before the desk was an empty chair.

The chief did not look up when Sammie entered; but, as Sam himself would say, he was used to the bluffs of many chiefs, so he quietly took the vacant chair and waited. At last the chief raised his head from his desk and looked vaguely at Sam, or in his neighborhood. Sam squirmed uneasily in his chair and cleared his throat.

"How are you fixed for operators?" he asked.

But the chief continued to stare for a few seconds; then he suddenly swung around in his chair, jumped to his feet, and pattered across the floor, through a side door, and out of sight into what Sam took to be the trick despatcher's room.

"He's batty," muttered Sam to himself. "This is sure my unlucky day. I think I'd better put off askin' for a job till to-morrow."

But just then the chief returned with a message in his hand, which he was reading with some intentness; so Sam remained in his seat.

Sam took note of the fact that the fat little chief chewed tobacco in a manner that reminded him comically of a goat; and that he spat about him as he walked as if under some mental stress.

"He's Dutch!" observed Sam. "And that means he's a Jonah."

At last the chief looked up at Sam with a question in his glinting spectacles.

"How are you fixed for operators?" Sam repeated doggedly.

The chief looked surprised and pleased, which facts Sam noted as more signs of bad luck to follow. For he was used to chiefs that growl and grumble when asked for a job, and this departure from the usual Sam regarded with suspicion.

"Are you a telegraph operator?" asked the chief. "Well, sir, I believe that I can give you a job if you are. Let me see your service letters."

Sam produced a goodly sized bundle of letters, and placed them upon the desk before the chief. This showing of so many service letters was indiscreet in Sam, for but few chiefs like to hire an operator who has moved about too much.

"Well, well," murmured the chief, opening his eyes in mild surprise. "It seems you have plenty of them. A sort of boomer, eh? Well, let us hope that you will settle down and give good service."

"It's my bad luck," complained Sam, warming in spite of his suspicions. "I work just so long for a road, then something happens, and I'm fired."

"Of course, I knew that it wasn't your fault," smiled the chief. "You look like an industrious, conscientious young man, and I believe you intend to do right by us."

But as the chief read letter after letter,

he could not help but note that "discharged for sleeping on duty" appeared in a great many of them.

So, after unwinding yards of red tape preliminary to going to work, Sam was sent to a small station as night operator.

But here his bad luck, as he characterized it, still pursued him. There was little work to do at this night office, and he could not help but sleep on duty.

After bearing patiently with him for about two weeks, the trick despatcher told the chief things, and Sam was called back to the office.

Disgust and resignation were written on Sam's countenance as he again faced the chief despatcher in the narrow little office.

"It's no go," he complained despondently. "I've got a hoodoo in me some place."

The chief's eyes glinted a little behind his glasses as he looked up Sam's undersized person, but he seemed not greatly offended.

"I'll give you one more chance," he said deliberately, "and we'll see if your hoodoo remains with you."

Sam's mouth opened loosely. Never before in all his experience had a second trial been given him, and this change of procedure in the species was so startling that he forgot to be suspicious until it was too late.

"There is a small mining town out on the desert," said the chief, "in the opposite direction from where I first sent you. There I have a good night job for you. There's enough work to do there to keep you awake if you'll do it, and the pay is pretty good. In fact, it is a good job. Will you take it?"

"Sure," said Sam, not considering before committing himself.

"Your train will leave here within five minutes," went on the chief; "so you'll have to hurry to catch it. Here's your pass. Good-by!"

Sam took the pass and departed. But he was hardly started on his journey before his superstitious fears returned and began to cause him uneasiness.

"Gee!" he grumbled to himself as the train left the green, fertile country around division headquarters and began to roll out on the desert. "Gee! I didn't even have my fingers crossed when I accepted

the job. Something's sure to happen. Wish I hadn't told him yes. If I had the two weeks' pay that's coming to me, I'd keep right on going."

After two or three hours of hot riding, Sam at last arrived at his station, and was left upon the platform, where he gazed about him. All around the little town there was nothing but desert and hills; and the heat of the noonday sun was blistering.

Not far away were the mine buildings, propped up into the hills; and across the track was the station building, with a huge black-and-white sign bearing the name of the town, "Sphinx."

After perceiving enough to fill him with disgust, Sam entered the small station, where he made himself acquainted with the agent; and that official explained matters.

He said that the regular night operator had quit, and that he needed another badly. He said, also, that there was nothing to do at night but — and here he cleared his throat and began in a sort of singsong to name over the things there were to do at night.

Sam listened to the recital for some time; then he took the agent firmly by the arm and shook him.

"Forget it!" he cried angrily. "I didn't come down here to be the handy man about town. Tell me where I can get something to eat, and then tell that chief despatcher to wire me a pass back to town. Say to him that I can't take this snap!"

The agent pointed out a little tent shack which, he said, was where they "fed people," and Sam went to lunch. When he returned to the station he found the agent busy with his reports, and on him Sam gave vent to his tortured feelings.

"That's a fine hotel you have over there," he said with deep scorn. "I had to go into the kitchen and wake the Chink cook before the meal was started, and then I had to worry the waitress for half an hour before she'd serve it. It's a funny town where a fellow has to work for everything he gets, then pay for it, too."

"The chief says he won't give you a pass," said the agent, with his nose in a big book. "Says you've got to stay here and take the job. Think's you'll like it if you get used to it."

"The chief says—what?" cried Sam, horrified. "Say, old man, tell me that again."

The agent repeated.

Sam kicked his battered suit-case under a table, and spat at it. Then he stood and gazed abstractedly out of the window for a few seconds.

"Said I had to stay here, did he?" he inquired at length. "Say, you're not kidding me? Said I had to stay in *this* town?" He took a long breath. "The next time I go into a chief's office, I'm

"Say!" he broke out. "Was that ride I took from town out here worth two eighty-five? They sure hang it onto a fellow when they catch him in a God-for-saken country, don't they? Two eighty-five! Well, I'll just have to bump the conductor of the first passenger-train to carry me in on my face. When's the first train due?"

"It is due about five o'clock."

Sam looked uneasily about him.

"Say, don't you know I am very much afraid I'll get to liking it here if I stay,"



"THE CHIEF SAYS HE WON'T GIVE YOU A PASS."

going to have all my fingers crossed. I knew when I got on the train something was going to happen. You tell the chief that I wouldn't take this job if he'd give me a sworn statement that he'd fire me within the week. If I took the job, I'd be sure to make good!"

"You'll have to pay your fare back to town if you go," said the agent dispassionately. "He won't send you a pass, you know."

Sam took out his money and counted. He had about fifty cents.

"What's the fare?" he wanted to know.

"Two eighty-five."

Sam looked shocked.

he complained; "and I'd rather never get another job in my life than to do that."

The agent went on with his work silently.

Sam spent the remainder of the afternoon seated in a dark corner of the office with his fingers crossed. A great fear was upon him that he might become enamored of the place and decide to stay, and he was certain that if he did he would never see the outside world again.

The passenger-train arrived about five o'clock, stopping only long enough for the agent to load on some express packages which he had received from one of the mining companies.

Sam buttonholed the conductor as soon as that official had alighted from his train, and asked for a ride to headquarters, showing at the same time his service letters in proof that he was a railroad man.

The conductor grinned broadly when he saw the name on the service letters, and he brought from one of his pockets a telegram, which he handed to Sam.

The message was from the chief despatcher to the conductor, and read:

Do not carry operator named S. McClaren from Sphinx unless he pays fare.

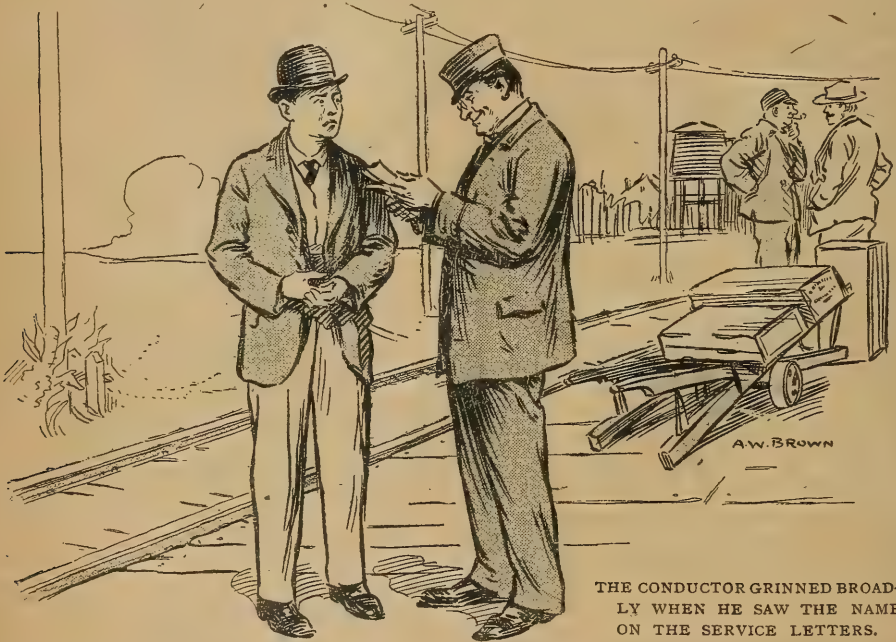
a sudden burst of hopeless anger flamed up in him. "I won't take this job!" he cried fiercely. "I'll walk out of town first!"

"Wouldn't the conductor carry you?" asked the agent as Sam entered the depot.

"Naw! The chief spiked him. When's the next freight-train due in here?"

"There's a freight due about midnight. None before, I guess. Better take the job."

"Nope! I'll try to catch that freight-train. If I miss her, I'll walk out of town."



THE CONDUCTOR GRINNED BROADLY WHEN HE SAW THE NAME ON THE SERVICE LETTERS.

Sam looked up from the message hopelessly.

"Say, con," he wailed, "don't it beat the dickens how a streak of bad luck holds out when a fellow just forgot to cross his fingers once? I suppose you won't carry me in now, will you?"

"Can't do it now," grinned the conductor. "If I hadn't received that message, I'd have carried you. But now I'd sure lose my job."

Sam's face was wrinkled into a mask of gloom as he watched the train wind away and lose itself in the desert.

"It sure do look like Nature was dead set ag'in' me," he said disconsolately, as he turned back toward the station. Then

Sam spent twenty cents for some food, and returned to the depot to eat it. He found the agent locking up for the night.

"There's no night-man here, you know," he explained to Sam, "so I have to lock up. We sometimes have a fellow here at night who keeps the light engines alive that come down here to take out ore-trains; but there'll be no light engine down here to-night, so there's no watchman coming on duty."

"Ore-trains," repeated Sam. "Do you have trains of ore out of here?"

The agent pointed to a siding full of box cars.

"You bet!" he said with pride. "Have two out of here every week, and some-

times more. When there's a train out in the morning, they send a lone engine down the evening before, and the engine-crew ties up till the train is ready. The watchman has to keep the engine alive during the night. He's not here to-night, you see. Won't be a train out in the morning. Usually have one out on this day of every week. I wonder if I told the despatcher there wouldn't be one out in the morning? Yes, I think I did. Good night."

Sam sat him down on a truck and consumed his meal in silence. There was a short twilight, then darkness, and Sam still sat there disconsolately.

After a while he was aroused by the sound of an approaching train.

"I wonder if that mut of an agent lied to me," he mused, as the train approached. "It's sure a train going toward town, and it's no more than eight o'clock. Well, if she's a freight, I'll try to hop her."

The headlight soon hove in sight around a line of buttes, and bore steadily down toward the station. It stopped at the end of the yards, however, and a few seconds later the switch-light turned. Then the engine puffed slowly into the siding, and came to a stop not far from where Sam sat. He saw then that it was a lone engine without cars.

After taking off their greasy overalls, the engineer and fireman slid down from the cab and walked toward the town, passing close to Sam as they went.

"I suppose that watchman is around here some place," Sam heard the fireman say as they passed. "I don't want the engine to blow up."

"He's likely over in town some place," answered the engineer. "He's heard us come in and will be here before long. He never did fail to show up."

Sam sat quite still for a long time after the two had disappeared in the darkness; then he slid thoughtfully to the platform.

"The agent did forget to tell the despatcher not to send down an engine," he soliloquized triumphantly, "and there's no watchman here to keep her alive. Some one's due to get into trouble."

At first Sam decided to let the engine be, and not interfere. Thus he would have some revenge on the fat little chief. But a new and better plan suggested itself, and he pondered it for a while.

"I'll just take the engine on into town myself," he chuckled, slapping his leg excitedly. "I'll show that chief who's who!"

He searched about the station for a while until he found a shovel. The blade of this he worked under one of the back windows of the office, and began to pry. After a little exertion, the catch that fastened the window broke with a snap, and the window raised clear of the sill. Then, with fingers tightly crossed, he crawled into the office and took his seat at the telegraph instrument.

He called up the despatcher and told him that the lone engine had arrived, but that there was no train to take out in the morning, and that the engineer wanted to go on to headquarters at once.

After asking a few questions, and expressing himself strongly on this waste of power, the despatcher issued running orders for the lone engine to run extra from Sphinx to headquarters, meeting two freight-trains and a passenger on the way.

Sam repeated the order, then searched diligently around on the wall till he found a switch-key hanging by the office-door. Then he crawled out of the window, took up his battered suit-case, and climbed aboard the engine.

He had ridden on an engine many times before in his life, and had once or twice run one while switching in a station-yard; so now he felt no fear as to his being able to run this one, although he might experience some difficulty in keeping her hot.

He climbed up on the right side, and after peering anxiously at the steam-gage and the air-gage, he released her, and sent her puffing slowly forward to the other end of the yards.

Soon he was out on the main line, and speeding down the track, with the lights of the little desert town vanishing behind.

"I wonder can I keep her hot?" mused Sam when, after setting a lively pace, he climbed down to peer into the fire-box. "She sure will take lots of coal."

He began shoveling energetically, and kept it up for a time. Then he slowed down long enough to go forward along the running-board and raise the headlight curtain, which the fireman had lowered before departing.

When he returned to the cab, he put on the fireman's overalls, jumper, and cap,

"so as to look like the real thing if I'm stopped," he grinned.

On he rumbled over the silent desert through the starlit darkness. He passed two lighted telegraph offices, and at both the light in the semaphore showed white. He found a time-card in the engineer's box on which he checked off the stations as he passed them, so as to know where to meet the opposing trains.

At the third open telegraph office, however, Sam encountered a stop signal set against him. He whistled for a clear board, but the light remained red.

"I wonder now what he'll be wanting," he grumbled as he slowed down. "Be like they've found me out, and are going to hang one on me. But I'll bet there's no one save the night operator in that office, and he can do me little harm."

He stopped the engine before the depot, slid to the platform, and strode into the office.

"What's your board out for?" he demanded of the operator, who hung sleepily over his instrument.

"Freight-train in the ditch on the other side of the next telegraph office," said the operator without looking up.

"The engine and half the cars slid off the bank. No one hurt, though. Despatcher wants to know if you can run down to the second blind siding from here and pick up Corbin, the general superintendent; Parks, the chief engineer of construction, and a couple of surveyors. They've been out in the desert doing some surveying, and rode into the blind siding just in time to miss the passenger-train bound for the city; so they telephoned in from a ranch to hurry something along to pick 'em up.

"Parks has got to reach the city in time to-morrow morning to attend a meeting of the directors, or there'll be the deuce to pay."

"That's quite a history," commented Sam. "But how do they expect me to get them around the wreck?"

"I dunno. Reckon they'll send an engine up from headquarters, or unhitch one from a freight-train, and send it up to meet you at the wreck, where it'll pick up the old man. Despatcher wants to know if you'll pick 'em up."

"Ask him if he thinks I'm running this engine for fun. Of course, I'll pick 'em

up, if I can find them in the dark. Is that all?"

"Yep!"

Sam strode out, climbed aboard his engine, and puffed away into the solitude.

"Chief engineer of construction has got to be in the city by morning, has he?" he mumbled. "Well, he'll have to do a lot of hustling if he does. Wonder what I'll tell 'em became of my fireman?"

He kept the engine going at a good pace, passed the first blind siding marked by a sign-board on a post, on through the darkness, till the headlight revealed a man in the center of the track frantically waving his arms up and down. Sam slowed down and stopped, and four men, with their luggage and tools, climbed aboard.

"What's this?" asked the man who first climbed into the cab, and whom Sam took to be Corbin, the superintendent. "Where did you come from, and where is your fireman?"

Sam blinked owlishly in the gloom.

"My fireman is sick, and I left him behind," he lied. "The despatcher sent me down to pick you up: There's been a wreck on the other side of the next station, and I'm to take you down to it. An engine from the other side'll meet you there and take you on. One of you fellows will have to shovel coal if you want any speed."

Sam latched out the throttle as he spoke, and the engine shot away into the gloom. The two surveyors took turns at tending the fire, while the two officials perched themselves up on the fireman's seat and conversed together in low tones.

"I've got 'em buffaloed!" grinned Sam into the darkness. "Gee! I wonder what I'll do with the engine when I reach the wreck?"

It was not far to the next telegraph office, and here again there was a red light in the semaphore.

"I wonder what is the matter now?" grumbled Corbin. "Another wreck, or some other delay, I'll be bound."

When Sam stopped the engine before the station, all slid to the platform and entered the office.

"The despatcher says he can't get an engine up to the wreck for about two or three hours yet," the operator informed them. "The freight-engine that started

to meet you broke down on the hill, and the despatcher had to cut off an engine from the passenger-train that's behind the freight and send it on for you."

"Hasn't the wrecker been started out yet?" Corbin demanded.

"The wrecker left headquarters about thirty minutes ago, and is behind the passenger-train."

"That about settles it, Parks," said Corbin to his chief engineer. "You'll not

better keep an eye out for them and not run 'em down."

The five left the office and took their places in the cab. Again the engine started on its way, and was soon roaring along over the desert.

The wreck had occurred at a place where the track curved around a lone butte at the top of a grade. A broken rail had evidently been the cause of the derailment; but, as the train had not been



"WHAT'S YOUR BOARD OUT FOR?" HE DEMANDED OF THE OPERATOR.

be able to make it in time to put the proposition before the board, and they'll sure call the deal off because we have delayed so long."

Silence in the office for a few seconds, then Corbin spoke again.

"We might as well run down to the wreck and see what's happening. Perhaps we can get things lined up for the wrecker when it arrives."

"The section-gang left here about fifteen minutes ago," said the operator. "They were bound for the wreck, so you'd

going at high speed on account of the grade, no great damage had been done."

When Sam brought his engine to a stop, a short distance from the wreck, all jumped and proceeded to examine things by the light of torches and lanterns.

"It looks bad, anyway," was Corbin's comment as he looked about.

While the others were examining the derailed cars, Sam went over the displaced track. This took but a short time, and then he ran off in search of the section-gang.

Sam soon had the section foreman at the torn-up track, explaining to him what he intended doing. The foreman listened, said that he understood, and forthwith sent one of his men to the caboose of the wrecked train to fetch a large cable that is always carried underneath a caboose in countries where wrecks are common.

When the cable was brought, Sam ran his engine as near the torn-up track as he dared, and the cable was hooked into the front coupling of the engine, then to the only derailed car, which remained in the road of those wishing to repair the track.

Then he slowly backed the engine down the track. The cable tightened, the derailed car faced slowly about, listed to one side, and then went over on its side clear of the twisted rails.

The crash of the falling car was the first notice the officials had that work of reconstruction had began, and they rushed back to the track to see what had happened. But when they arrived they saw Sam's engine slowly backing down the track away from them. Corbin cursed, and swore the engineer had gone mad.

But Sam had not gone mad. He had merely taken the section-gang and gone to a near-by tie-pile, where the men loaded on a few ties. Then back he came, and the ties were hastily unloaded.

Corbin thrust his head in at the side of the cab and demanded to know what was going on.

"I'm fixin' to take you on to division headquarters," explained Sam, "so your man can catch the flier from the other side which will get him into the city early in the morning. Now you watch me do it."

There had been perhaps fifty ties broken by the derailment, and about three rails on either side torn up. Two of these rails were still serviceable, but the rest were bent and broken so that they were useless.

Under the direction of the foreman, the broken ties and rails were quickly cleared away and new ties substituted—the new ties being placed as far apart as was consistent with any chance of safety. Thus placed, they bridged the gap in the track.

Then the men placed the two good rails upon the ties and began driving spikes frantically. When the two rails were spiked in place, the men hurried to the

rear of the engine and began tearing up rails from the solid track.

When a rail was loosened, it was instantly carried forward to be placed in the narrowing gap; and when this rather flimsy track was complete, the train-crew of the wrecked train was aroused from their caboose, commanded to release the brakes of the remainder of their train, and let it roll back down the hill.

The trainmen and the enginemen obeyed when they learned whence came the order, and in a short time the part of the train that had not been derailed was gliding smoothly down the hill toward a little siding not far distant.

When they were well out of the way, Sam climbed into the cab of his stolen engine, and, while the rest looked on breathlessly, he ran the engine slowly onto the flimsy track. At every slow turn of the drivers the track sagged from side to side, but it held together till the engine crossed to the more solid track.

"Good for you, Mr. Engineer!" cried Corbin, as the four men climbed into the cab. "Now let her out at her best pace for headquarters, and we will try to keep her hot for you."

"What about that light engine that's coming to meet you?" asked Sam as he opened the throttle. "We may meet her between here and the first telegraph station."

"Let her out anyway, if you're not afraid to take the risk," ordered Corbin. "We'll try to keep a lookout for her. We ought to be able to see her long before we get into her on this flat country."

Away they shot, Sam crouching among the levers, the fingers of his left hand carefully crossed on the throttle; his little eyes gleaming with excitement as he searched the path of light ahead for a sign of obstructions.

As they shot by the unwrecked half of the freight, the crew swung their lanterns high in air and shouted encouragement.

Corbin and Parks crouched on the fireman's seat, keeping a sharp lookout for opposing trains, while the two surveyors toiled at the furnace. Sam seemed to have gone mad with excitement, and he drove the engine forward at ever-increasing speed.

At last he sighted the lights of the next station, but even here he seemed reluctant

to stop. He drove down upon it at almost full speed, and when he did put on the air, Corbin and Parks were tossed up on the boiler-head, and the two surveyors groveled in the coal.

Once in the telegraph office and in com-

"Come up to my office to-morrow! I want to see you!" and then dived into the big station after his chief engineer.

"I will—nit!" grinned Sam as he watched the super go. "If the company will give me my two weeks' pay, I'll not



"I WON'T HAVE SUCH A MAN AS YOU ON THE DIVISION."

munication with the despatcher, Corbin ordered the track cleared for his light engine. Soon they were all in the cab again with the required orders, and the race to catch the Overland was resumed.

That race was a masterpiece of luck and nerve. Sam seemed to lose all sense of fear or judgment as he clung to the wide-open throttle while the engine careened dizzily around sharp curves or shot down long grades. Every one hung on as best he could, but the two amateur firemen had the hardest time.

With but little coal or water left, Sam brought the lone engine into headquarters a few minutes before the Overland arrived. As Corbin swung off the engine, he called back to Sam:

be bothering them any more. I'm through with this business for a while."

He ran the engine down into the yards and hailed a passing switchman.

"Hey, terrier," he called to the switchman, "come take this engine into the roundhouse! I'm all in, and sick besides. I brought the engine most of the way from the other end of the division without a fireman."

After the usual grumble, the switchman took the engine, and Sam, with his battered suit-case, slipped away into the dark to find a park-bench to sleep on.

The next morning, Sam again climbed the stairs to the chief despatcher's office. He looked a little more battered and

crumpled than was his wont, and his fingers were a little more tightly crossed than was usual on such occasions.

He entered the chief's office without knocking, slumped into the chair before the chief's desk, and stared vacantly before him.

The chief looked up, and his little eyes widened with surprise.

"Well," he said sharply, "how did you get here?"

"I came in by the air-line," said Sam dispassionately. "I want my time."

The chief looked thoughtful.

"How would you like—" he began.

"No! I won't take any more of your snaps!" cried Sam fiercely. "Come through with my time, and I'll call it square."

The chief sat silent, as though listening for a few seconds; then, as he had once before done when Sam was in the office, he swung around in his chair and pattered into the trick-men's room.

"He must hear the message when it's coming in," mused Sam.

As before, the chief came back presently with a message in his hand. Even more than usual, the message seemed to excite the little chief.

"This blamed division of mine is going to the bad," he complained. "Some one went and stole an engine from Sphinx last night. They'll be stealing a whole train next."

His little eyes wandered about the room in search of something to vent his anger on, and they fell upon Sam.

"You're discharged!" he shrieked, waving the message in the air. "I discharge you now! I won't have such a man as you on the division!"

This was the way chiefs usually acted toward Sam, and his superstitious feelings were lulled to rest. He was sure now that he would get his time.

"Don't do anything rash, chief," he grinned. "You give me an order for my time, and we'll say good-by."

"You'll have your time right now!"

shrilled the chief. And he sat down at his desk, drew out a form, and, filling it out, handed it to Sam.

Sam took the paper and scrutinized it carefully, as if looking for flaws. Just then the door opened. In walked Corbin.

"Hallo, Mr. Engineer!" he said to Sam genially. "Telling the chief about our phenomenal run last night? That was a good one, you bet. Say, chief, didn't we break all records on this mountain end?"

Sam slowly folded up the slip of paper and put it into his pocket.

"I have just discharged this man," smiled the chief uncertainly. "You must be mistaken about him, Mr. Corbin."

Corbin suddenly became cool and calculating.

"Discharged him! Since when have you had the authority to discharge an engineer?"

"Engineer, Mr. Corbin? I thought you were mistaken. This fellow is an operator, and was in our service. I have just discharged him."

Corbin looked at Sam for a few seconds in silence.

"For Heaven's sake, my friend," he said, "tell me how you happened to be running that engine last night?"

Sam calculated the distance to the door, but wavered. Vanity and a wish for revenge on the chief caused him to say: "I'll tell you, if you'll swear never to blacklist me or have me arrested."

Corbin promised, and Sam told him the story.

Corbin laughed shortly when Sam had finished. The little chief was very red in the face.

"Well," said Corbin, "we still owe you something for getting our construction engineer to the Overland in time. Do you want another job on this division?"

Sam positively did not.

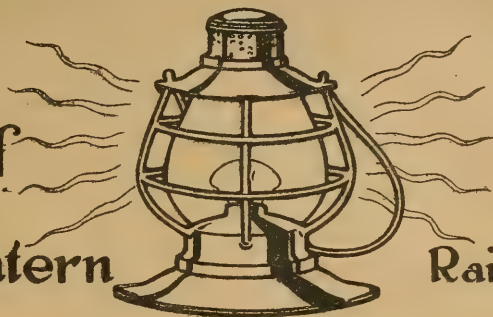
"I'd rather go to jail," he said. "But if you'll give me a pass to the city, I'll be much obliged."

He got the pass.



WHAT'S THE ANSWER ?

By the
Light of
the Lantern



Questions
Answered
for
Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. In future, we shall be compelled to limit its scope to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered in this department.

PLEASE inform me the length of the new locomotive just built for the Atchison, Topeka and Santa Fe Railway, which is supposed to be the largest passenger engine in the world.

(2) How is water taken on the fly by locomotives?—H. B., Donora, Pennsylvania.

(1) You refer, no doubt, to engine "1300," recently completed at the Baldwin Locomotive Works for the road mentioned, and of which a description and illustration appears in the January magazine. It is not the largest engine in the world, but, as you infer, can readily be identified as the largest intended solely for passenger business.

The total driving-wheel base, or length between centers of the front and rear driving wheels, is thirty feet four inches. We have no official dimension for the total wheel-base, or the length over all of the engine proper, which latter represents the information desired by you, but from the other dimensions which we have, an estimate of fifty-five feet, for the length of the engine proper, would not be much in error.

For the engine and tender a total length of about eighty feet would be indicated. The weight on drivers of this engine is 268,000

pounds, and the total tractive effort, 33,000 pounds.

It is therefore much inferior in size and power to the monster "4000" of the Southern Pacific, described in the Lantern Department of the December number. This latter, however, is exclusively a freight-engine, and does not interfere with the claim made for the "1300."

(2) In order to save time on fast runs by filling the tender of the engine while the train is in motion, it is necessary to lay down a track tank on a perfectly level stretch of track, one-half to three-quarters of a mile long.

This tank is simply a shallow iron trough, very similar to that which is an auxiliary to coal delivery-wagons in cities, say eight inches deep, and twelve inches wide, kept supplied with water from the ordinary water-tank, one of which is usually located at either end of the track tank, and with automatic control to always maintain the height of water in the latter at the desired level.

The apparatus on the tender for scooping the water is simple, consisting merely of a scoop under the center of the tender

to fit the track trough. The end of this scoop is continued by a pipe which turns up behind the end of the tender and finally empties down into its interior.

When it is desired to take water the scoop is dropped into the tank, either by a lever or a piston operated by compressed air. The mouth of the scoop, having, say, eight inches vertical opening, drops four inches into the water, and the speed of the train over the trough results in the water being forced readily into the tender.

Proper signals by day, and lights by night, are placed to indicate the points where the scoop should be lowered or raised to avoid damage.

ARE any female engineers running engines in the United States, and if so, how many?—E. M. B., Wheeling, West Virginia.

None, of record. There is a story, however, current in your own section, at the time when the editor of this department fired an engine for a living, that a woman operated the sole locomotive on the branch from Volcano Junction to Volcano, West Virginia.

This little railroad, a very few miles long, abutted from the junction mentioned, about midway of the famous old "Fifth Division" of the Baltimore and Ohio, which, with its twenty-three tunnels and seventeen bridges, or vice versa, extends from Grafton to Parkersburg, a mosaic on the main line of that road's St. Louis and Cincinnati line.

There is no wilder country now, in all the expanse this side of the Mississippi, than this historic section, and this was twenty-five years ago. The thought was never recalled until awakened by the receipt of your letter, but there is now a lively recollection that a woman did have charge of this ancient Volcano engine, in the dual capacity of engineer and fireman.

Perhaps some of our Baltimore and Ohio friends in that section will confirm this reminiscence. We do not know even whether the old Volcano Railroad has passed away, but certainly this story must have had some foundation in fact.

R. M., Upland, Indiana.—We don't seem to locate any announcement or advertisement of the valve-gear which you mention. Address *Railroad Age Gazette*, New York or Chicago, for the paper wanted.

M. B. T., Oklahoma City, Oklahoma.—Straight air in use braking trains is confined to the locomotive, otherwise the

indispensable automatic feature would be lost. It is very effective, when properly handled, in bunching the slack, before the automatic brake is applied.

WHY is it that a locomotive or car-wheel tire is wider than the upper surface of the rail, or vice versa? Why are they not made the same width? I have noticed old wheels, on old locomotives and cars, and there is always present an ugly, uneven groove on the tire of the wheel. Would it not be better to have the tire wear down even by having an equally as wide rail and wheel-tire?—V. C. Y., Los Angeles, California.

If the tires were not wider than the upper surface of the rail, the vehicle which they were under would be derailed in rounding curves. For instance, taken an engine of but fifteen feet six inches rigid wheel-base, and although we have many examples in this country longer than that, the tires on the two middle drivers of this engine are nevertheless nearly off the rail in rounding a twenty-two-degree curve, even though the tires are six inches wide.

Of course, a twenty-two-degree curve is exceptional in railroad construction in this country, but it is well to have exaggerated conditions to emphasize the statement. Always bear in mind that the driving wheels of a locomotive are rigidly spaced in relation to one another, and that there can be no flexibility of movement between them.

The entire arrangement, so far as the total driving wheel-base is concerned, moves in a straight line, no matter whether the track over which it moves is curved or not. It merely remains for you to lay down on paper two curved lines, representing a portion of track, and within these lines place a straight stick or rule, to appreciate what would happen if the tires and rail-heads were of the same width.

The groove which you mention is natural wear. It is allowed to reach certain proportions, say eight thirty-seconds of an inch deep, when the tires must be removed and their tread returned in a lathe to the standard contour.

E. F., Lansing, Michigan.—Your question regarding the best practise in the spacing of fence-posts has awakened so much discussion among the various roadmasters to whom it has been submitted, that we cannot answer in any way which would be of value to you. Would suggest that as the peculiarity mentioned seems to be confined to your section, inquiry be made direct of some roadmaster or supervisor.

There is no doubt some good reason why they should be spaced as closely as you say, and we would also appreciate the information, as we have a natural lively interest in these matters.

There is nothing to be gained in lubricating journal-boxes on cars from the locomotive; rather, an endless confusion would result. There are enough auxiliaries on a locomotive now to harass a man who has about all he wants to do to watch the water and the signals. Ample provision is also in evidence for each journal-box to be self-supporting on the road, and although the hot-box question may still be called a problem, it is really nothing from the view-point of the vast number of boxes which run every day without heating.

The plan which you propose, from your brief description, would imply the direct application of oil to the various journal-boxes from a reservoir on the locomotive, and when it is recalled that on a fifty-car freight-train there are four hundred boxes, it may be imagined that the expense attached to this operation, even if practicable, would render the scheme prohibitive. As it is now, the journals and boxes are generously proportioned to sustain their percentage of the total load, and to provide the proper area of lubrication for the bearing surface.

They are surrounded practically by saturated packing, and capillary attraction, through the packing strands, secures adequate and uniform lubrication. As a rule there is only one, or maybe two, hot boxes on a train at the same time, and we cannot imagine what system of piping you could devise to enable these hot ones to be individually treated from the locomotive without deluging all the others with oil which they do not need.



WHAT is combustion, and how is it obtained?

(2) Is a tandem-connected engine one whose eccentrics are not on the main axle?

(3) Where can I get a book on steam heat, as used in passenger-train service?—J. H. M., Marion, O.

(1) The act of combustion, as well defined in the instruction book issued to its firemen by the Erie Railroad, results "from a strong natural tendency which oxygen and carbon have for one another, the carbon being the fuel, and the oxygen the supporter of combustion, but they cannot unite freely until a certain high temperature is reached, when they combine very rapidly, with violent evolution of light and heat."

There are other forms of combustion be-

sides that known as burning, the rusting of iron and the explosion of gunpowder being examples respectively of very slow and very rapid combustion. Oxygen is the most abundantly diffused element in nature.

It is never found existing in a pure state, but in combination with all other elements except one. Eight-ninths of all the water on the globe, by weight, is oxygen, and nearly one-fourth of the weight of the atmospheric air is oxygen. The fuel used for steam making is composed of carbon, or the compounds of carbon and hydrogen.

Carbon is the principal element found in trees, and in all woody fiber, and is the fundamental ingredient of all kinds of coal. The ordinary run of American bituminous coal contains from 50 to 80 per cent of fixed carbon, which makes the coke, and from 12 to 35 per cent of volatile substances, which burn with a lurid flame and supply the ingredients of coal gas.

These inflammable compounds are known as hydrocarbons, being combinations of hydrogen and carbon. Anthracite coal differs from other coals in the fact that it contains principally fixed carbon, with but little volatile matter.

Good anthracite contains as high as 90 per cent of pure carbon. Having mentioned the leading elements which take part in keeping a fire burning, the following is the action which takes place in the fire-box of a locomotive:

When the air, drawn violently through the grates by the suction of the exhaust, strikes the glowing fuel, the oxygen in the air separates from the nitrogen, and combines with the carbon of the coal and the hydrocarbon gases distilling from the coal, which have intense heating properties.

One pound of carbon, uniting with oxygen to form carbon dioxid, generates 14,500 units of heat, or sufficient to raise eighty-five pounds of water from the temperature of the tender tank to the boiling-point. When a fire-box is properly fired, and is burning good coal, with admixture of twenty pounds of air to each pound of coal consumed, the fire-box temperature will be about 2000 Fahrenheit.

The question of combustion is rather too extensive to discuss within the necessary space limitations of this department, but it is nevertheless one of supreme importance to railroad companies, and of late practically every road is making efforts to educate its firemen to an appreciation of the scientific principles involved. This is especially to the point when a person stops to figure what the outcome to the company would be if each fireman was to save, say, twenty-five dollars monthly in coal.

There is no doubt but that this could be easily done, as assuming coal to cost the railroads no more than one dollar per ton, there is certainly twenty-five tons wasted by a great many indifferent firemen each and every month. On a road having 1,500 engines this would amount to the comfortable sum of \$500,000 per year, and may be taken to represent the difference between success and failure in the proper firing of locomotives.

(2) A tandem locomotive is essentially one of the compound type, and is so designated because cylinders are placed tandem fashion, the high-pressure cylinder ahead of the low-pressure. The position of the eccentrics is no different than on any other type of engine, generally on the main axle, although there is no reason why they should not be located on the second axle.

(3) We appreciate the difficulty you have experienced in locating a simple handbook on the operation and care of the steam-heat line, as we have not been able to find anything of the kind in the technical bookstores. Each railroad, however, issues a manual on the subject for the information of its own employees, and possibly you can secure one of these from a friend in the business.

H. F. W., Minneapolis, Minnesota.—Any vehicle in rounding a curve, whether car, locomotive, or automobile, tends toward the inside or short side of the curve, and if the speed is high and the curve short, this inside becomes to all intent and purpose a pivotal point, thus inducing the liability for the wheels on the outside to rise from the ground or from the track. A compensating feature, in the instance of railroads, is afforded by the elevation of the outside rail of the curve, and this is equally applicable to banking the turns on automobile speedways.

G. E. F., Grand Rapids, Michigan.—We cannot advise definitely at this writing what railroads waive the color test in the examination of men employed as telegraphers, but will endeavor to give information next month.

WHAT is the name of the "R. and H. R." and in what part of the State of New York is it located; also, the gage of track and the number of locomotives in use on this line? Am unable to find this information in the official railroad guide.—J. H. R., Rochester, New York.

There is no railroad of the designating initials which you quote in New York State.

The nearest to it is the "B. and H.," or Bath and Hammondsport Railroad, and we imagine that this must be the one you mean. It runs from Bath, New York, on the Rochester division of the Erie, to Hammondsport, New York, at the head of Keuka Lake.

Although considered to be an independent line, it is really controlled by the Erie. It is standard gage, four feet eight and one-half inches, and has two locomotives of its own, in addition to an Erie engine, which is generally detailed there to help out. The length of this road is ten miles. If it is not the one on which you desire information, let us know, and we will try to go deeper into the quest.

IN your January magazine I notice in an article—"an attempt was made to shunt three Lackawanna cars onto a trestle at Newark, etc." I have been railroading thirteen years, and haven't heard of "shunt" before. Will you endeavor to tell me what "shunt" means, and how it is done?—H. N. P., Billings, Montana.

"Shunt" simply means to switch. It used to be a common application to this operation, even in the book of rules of many railroads up to a comparatively recent period. In England, and her possessions, switching engines are shunting engines, and all switching movements as you understand them are shunting.

This word is tabooed in American railroad practise, and the editor of this department never employs it herein, but whoever wrote the article referred to, in which you noticed it, was entirely within his rights, as it is permissible in story-writing and special articles.

PLEASE explain which wheels on either side of an engine revolve the fastest in making a curve on the road?—J. H. M., Duluth, Minnesota.

They both revolve at the same speed, which they logically must, both being on the same axle, and each pair maintained at a rigid distance from the next pair, on account of the driving boxes and frame pedestals. Of course the wheels on the outside, or long side of the curve, must go over a greater apparent distance than those on the low or inside, but it is advanced that there is a slight drag or slip in the instance of the wheels on the inside of the curve.

This premise and the fact of the tires being tapered to allow the wheels on the high side to run on their largest diameter permits the rounding of the curve, no matter how long the rigid wheel-base of the

locomotive might be, if, of course, within reason.

HOW many steam roads enter and leave Chicago? I do not mean systems, but steam lines under different names.—L. J. L., Twin Falls, Idaho.

Thirty-eight railroads. If you will send your address will forward the complete list by mail; too long for reproduction here.

P. B. A., New York, New York.—The Union Switch and Signal Company, Swissvale, Pennsylvania, were practically the pioneers in the development of the electric automatic block signal. This is an American invention, but we cannot say to what genius in the employ of that company the idea should be credited. Would suggest that you write them for that portion of the literature which they issue, concerning their various outputs, which deals with the history of electric signaling.

Electric block signals were installed by the Old Colony Railroad, now a part of the New York, New Haven and Hartford, in 1890, and this is the earliest application of which we can find any record. In brief, electric automatic block signals are controlled by electro-magnets, actuated by an electric current flowing through the rails of that portion of the track which constitutes the section to be protected.

From a battery at the outgoing end of the section the current flows through the right-hand rail to the signal at the entering end; thence through the coils of a relay at that signal, and back through the left-hand rail to the battery. The track being free from all vehicles the relay is energized by the current, and by means of a magnet holds the signal in the safety or "all clear" position.

The presence of a train, or car, in the section, deenergizes the relay by making a short path for the current through wheels and axles, from one rail to another, and thus allows the signal to change by gravity from all clear to the "stop" position.

WHAT part of a drive-wheel on an engine does not turn when the engine is in motion?

(2) Will an injector work with the check on the top of the boiler?—J. W., Leavenworth, Washington.

(1) The exact center, which position, of course, would be the center of the axle on which the driving wheel is mounted. The only movement possessed by this point is

progressive, dependent upon, and in the same ratio with the speed of the vehicle or locomotive on the rails.

(2) The pressure opposing the working of the instrument would be the same with the check so arranged as though the water entered below the water level in the boiler, but as all injector checks leak to a certain extent, which, though slight with water, would be very prominent with steam, the working of the injector would be affected, with the results quite unsatisfactory.

Even if this were not a consideration, it would be absurd to so arrange a check, as the effect of the relatively cold water, discharged into the live-steam space of the boiler, would certainly operate against the free steaming qualities which locomotive boilers, above all other types, must undoubtedly possess to meet the stringent demands upon them.

PLEASE tell me the derivation and meaning of "ex," as used in the following illustration: "One case porcelain ex. S. S. China," etc.

(2) Has any attempt ever been made to muffle or silence the exhaust of locomotives?—P. J. F., New York, New York.

(1) The general freight-agent of a prominent railroad advises that it means "out of," or "from," as "One case porcelain out of S. S. China."

(2) It has never been really regarded as a necessity, except in the possible instance of steam motors, which are at times to be found pulling freight-cars about cities, or in such environment where the noise of the exhaust might prove a real objection. It would be a matter of impossibility on a modern, high-speed locomotive, with the draft appliances arranged as at present, to bring about a muffled exhaust. It is necessary that the exhaust leave the stack free and unimpeded, and with considerable violence, in order that the proper vacuum be induced in the smoke-box and flues to promote combustion.

Instances where exhausts have been successfully muffled are afforded in the steam motors which operate at night in the streets of Boston, transferring freight between the north and south terminal stations; in fact, we believe that the law in some sections makes it compulsory that whenever steam locomotives are employed in cities, the exhaust feature shall be so treated.

L. J. B., Fowler, Colorado.—The argument advanced as to why the wheels of a locomotive on the low side of the curve should slip a trifle when the entire machine

is rounding a curve, is based largely on the fact that the wheels on the high, or outside, have a greater distance to cover than those on the inside, before the curve returns to the tangent. We know that in the instance of any curve, of high or low degree, that the outside rail is some longer between tangents.

If the engine is, say, of seventeen feet rigid, or driving-wheel base, this means that from the center of the leading driving-wheel to the center of the rear driving-wheel, will always measure seventeen feet, for either side of the engine, no matter whether a curve is being rounded or not.

As each pair of wheels, being mounted and keyed on same axle, must revolve at the same speed, irrespective of whatever condition of track may be present, it is logical that to compensate for the apparently additional ground covered by the outside wheels there must be a slip or drag, to a small degree, on the part of the series of wheels on the inside rail. This does not mean that these wheels slip in relation to those on the opposite side, but that they slide just a trifle on the inside rail.

This is the presentation of the matter which we can recall having heard more than once from the lecture platform, but, personally, we do not believe that this slip exists. It would appear, properly viewed, that the progress of the locomotive around the curve is in an absolutely straight line, so far as its rigid wheel-base is concerned; a series of straight lines, to better explain, as, owing to the elevation of the outside rail, it is being continually dropped to the low rail.

For instance, it runs straight until this movement is impeded by the contact of the front driving-wheel flange on the high side with that rail. This contact drops it to the low side, giving it another chance to run straight until the condition repeats, and so on until the curve is rounded.

This view, we think, is borne out by the spread given the gage of the track on curves; the excessive width of the tires over that of the rail-heads, and the closer spacing of the tires on the front and back drivers over those on the middle drivers, but we do not insist upon it. It is one of the most interesting problems connected with the locomotive. The wheel-base of car trucks is so comparatively short that the question scarcely comes up in that instance.



KINDLY inform me what is the best solution for keeping dies cool in bolt-threading machine.

(2) What is the best solution to use in tempering dies?—C. H. L., Ottawa, Kansas.

(1) Lard oil is used extensively in the larger railroad shops for this purpose, and it has many advocates, but its use is questionable. One particular objection which appeals to us is its tendency not to run freely in cold weather. The end to be sought in all lubricants for bolt-threading machines is not so much the quality of the lubricant, but to get it where it belongs, to the cutting edges of the dies.

The editor of this department conducted experiments covering a considerable period to determine the best solution for this purpose, and could find nothing better, or even equivalent to Monarch oil. It was proved during these tests that this oil not only keeps the dies from heating, but accomplishes extremely gratifying results in minimizing the wear of the dies as well.

(2) There is only one proper way to do this: Dip the die, or tap, after heating to cherry red, in water, and then draw the temper to a straw yellow. Do not lose sight of the important fact that there should be at least one-half an inch of oil on the surface of the water; this to prevent any cracking of the steel.

Endless experiments have been made with solutions for the purpose which you name, but it has been found in the long run that the intelligent use of oil-covered water, as outlined here, is the most effective after all, and we don't hear much of baths and solutions these latter days.



B. R., Grizzly Bluff, California.—Would suggest that you take up the question of metal saws with Fairbanks, Morse & Company, Chicago, Illinois, as our sources of information regarding the sizes and price of these implements are somewhat unsatisfying. We feel quite sure that this company will be pleased to furnish you with full information.

In regard to the cost of new locomotives: This varies, of course, dependent upon what locomotive builders have to pay for the stuff which enters into their composition. This is variable to a greater degree than might be looked for in a presumed well-regulated business. For instance, we have in mind a railroad which one year paid \$20,000 each for a number of large size, up-to-date, Pacific type passenger engines, and the very next year secured several duplicates of these engines, and with some improvements added, for \$17,500.

This latter quotation, however, is very low for this type of power. Broadly speaking, \$18,000 represents the cost of all classes of power of the present day, unless some unusual type is under consideration, such as

an articulated compound, when it may rise to \$25,000. These figures, however, will no doubt serve in furnishing you with the general information desired.

ON a train a mile long, moving at the rate of a mile a minute, two men are standing—one on either end. The man at the rear has a gun which can discharge a bullet at the rate of a mile a minute. Can he shoot the man on the front end of the train?—N. D. M., Butte, Montana.

It would be the same as though the victim had been fired at on stationary ground, and it can be reasoned, did space permit, that all features involved, viz., the two men, the train, and the bullet, bore the same relation to one another as though the incident had not transpired on a moving object. This is a question, whether in this guise or not, which always invites the liveliest comment, and the editorial carpet and puzzle department have frequently thrashed over the pros and cons of it.

WHAT railroad systems, in the United States, have so far installed the telephone system in despatching trains? —A. R., Florence, Kansas.

The low-grade division of the Pennsylvania, between Columbia and Parkersburg, Pennsylvania, a distance of thirty-eight and four-tenths miles, has been operated by telephone, supplemented by block signals, since August, 1906. The average number of trains handled daily on this section of the road is ninety-five. The Lake Erie, Alliance and Wheeling is operating its line of one hundred miles of single track, by telephone exclusively, and has been doing so for some years.

The Chicago, Burlington and Quincy, during the early part of 1908, installed the telephone for despatching service on its main line between Aurora and Mendota, a distance of forty-six miles; Aurora and Chicago, a distance of thirty-seven miles, and between Aurora and Savannah, a distance of one hundred and eight miles.

In addition to the roads mentioned, the following large roads are installing telephone

despatching systems, and expect to operate by this system exclusively: The Illinois Central, the Lake Shore and Michigan Southern, the Canadian Pacific, the Chicago, Milwaukee and St. Paul, the Chicago and Northwestern, and the Northern Pacific. Other roads, among which may be mentioned the Delaware, Lackawanna and Western; the Erie, the Baltimore and Ohio, the Seaboard Air Line, the Southern, the Delaware and Hudson, the Queen and Crescent, the Michigan Central, and the Union Pacific are making investigations of telephone despatching, and may install such systems.

We regret that we are unable to advise you definitely in regard to what the Santa Fe has done along these lines, as our records unfortunately are not clear. You might take the matter up with Mr. L. M. Jones, assistant superintendent telegraph, Topeka, Kansas, who will no doubt accommodate you with the information desired.

T. K., Alpaugh, California.—We do not know of any watch might be called standard railroad watches anywhere in this country; that is, watches which a railroad might insist on its employees carrying. This would savor a little too strongly of graft, and railroad men are quick to appreciate such things. It is safe to say that any good American movement watch, certainly one of nineteen jewels, will pass the ordinary watch inspector.

Any one of the various makes which you may have noticed advertised to pass such inspection will as a rule do so, as the claim would not be made if they did not possess the necessary adjustment features and jewels to put them through. We are not in possession of the names of the watch inspectors of the two roads you mention, either at San Francisco or Los Angeles.

As a rule, these inspectors are merely jewelers doing business in the towns along the railroad, to whom the employees must take their watches for examination at periodic intervals. A certificate is then issued covering the time to intervene before the next inspection, and this certificate is forwarded to the division superintendent for file and record.



GOING NINETY MILES AN HOUR.

It May Be Possible To Make the Run Between New York City and Philadelphia, in the Near Future, in One Hour and Forty-Five Minutes.

THERE are few, if any, cities in the United States which can boast of an intercommunicative train service superior to that maintained by the Philadelphia and Reading Railway and the Pennsylvania Railroad between New York and Philadelphia. The fastest trains on both roads make the run in two hours, and as this includes the time required to ferry passengers across the Hudson River, the distance of approximately ninety miles between Jersey City and Philadelphia must be covered in about one hour and forty-five minutes. Including stops, of which at least two are always made, the average speed is thus about 50 miles per hour.

Train No. 602 leaves Philadelphia at 8.00 A.M., and is scheduled to stop at Columbia Avenue, Wayne Junction, and Elkins Park, the last named a suburban station 9.2 miles from the Philadelphia terminal. The 81 miles from Elkins Park to Jersey City are scheduled to be run in 89 minutes, equivalent to 54½ miles an hour. In the present instance the train was composed of one combination baggage and smoker, one coach, one diner, and two Pullmans, estimated to weigh between 275 and 300 tons.

The engine was No. 303, a three-cylinder, single-expansion Atlantic type with superheater. The cylinders are 18½ x 24 inches, and the drivers 80 inches in diameter.

Slowed Down Several Times.

Previous to its arrival at Elkins Park, the train was slowed several times, and it left the station at 8.24 instead of at 8.19, as per schedule. The locomotive accelerated rapidly, and Bethayres, six miles from Elkins Park, was passed at a speed of nearly 82 miles per hour. Between this point and the Delaware River there are a number of favorable stretches for high speed, and the maximum recorded was 42 seconds to the mile, equivalent to 85.7 miles per hour.

At mile-post 60 speed was reduced to scoop water, and the train started up the grade of 37 feet per mile, east of the Delaware River, at about 50 miles per hour.

This grade is easier toward the summit, where the slope is 19 feet per mile; its total length is about five miles, and the summit

was passed at a speed of nearly 60 miles per hour.

On the favorable stretch east of Hopewell the speed increased rapidly, and at three points reached 90 miles per hour (40 seconds per mile). Near mile-post 33 a sharp reduction took place, incident to crossing the Lehigh Valley tracks at grade, and running through the junction of the Reading's New York branch and the Central Railroad of New Jersey. Bound Brook was passed at moderate speed, and the remainder of the run calls for no special comment. Jersey City was reached, in advance of schedule time, at 9.43.18.

This Is Going Some!

The following facts are worthy of note: The highest speed recorded was 90 miles per hour.

The 17 miles from mile-post 77 to mile-post 60 were run in 12 minutes 56 seconds, at an average speed of 79 miles per hour.

The 12 miles from mile-post 46 to mile-post 34 were run in 8 minutes 13 seconds, at an average speed of 87.6 miles per hour.

The 49 miles from Elkins Park to mile-post 32 were run in 41 minutes 34 seconds, at an average speed of 70.7 miles per hour.

The entire distance of 81 miles from Elkins Park to Jersey City were run in 79 minutes 18 seconds, at an average speed of 61.4 miles per hour.

If the average speed of 70.7 miles per hour had been maintained for the last 32 miles, the train would have reached Jersey City at 9.32.42. This fact certainly suggests the entire possibility, if not the feasibility, of running from Philadelphia to New York in one hour forty-five minutes, including the ferry across the Hudson.

This run was, of course, made without special preparation, and took place on a snowy morning with a consequently wet rail. It is of special interest in that it was performed by an experimental locomotive, possessing features new to American practise. The engine accelerated the train rapidly and appeared to handle it with great ease.—“Eagle Eye,” in the *American Engineer and Railroad Journal*.



TAGGED BY CUPID.

BY HARRY PENCE.

Interstate Commerce and Two Happy Hearts Laugh at Law and Locksmiths.

SHE was beaming with the joy of life, this very pretty young woman who boarded No. 11, at Eastley, and the glow of her face became a radiance when she shook hands with Bob Gurney, the veteran conductor on that division of the R. S. and T.

She had a big bouquet of flowers for him, too, which he accepted with even more than his customary cordiality. He led her to the most comfortable spot in the car, and they chatted gaily every moment he could spare from his duties till she arrived at Rigdon.

I had made the trip often and knew Gurney well. In fact, I always looked forward to the ride because this prince of good fellows nearly always had a new story, and a bunch of diverting conversation which beguiled away the time, but this day he looked over at me with an expression on his face which declared that his excuse for neglecting me was evident and sufficient.

"Whose's your friend?" I asked, as we pulled out of Rigdon.

There must have been a suggestion of impudence in my voice.

"See here," he said, at length, "I know you and know you don't want to get gay. Of course there are a great many misguided young women who are dazzled by the glare of a uniform and don't seem to care much whether it is worn by policeman, fireman, or soldier.

"They are usually too silly to be allowed to live and are an eternal nuisance. This case is different, and, to knock any absurd ideas out of your head, I'll tell you the whole story.

"Five years ago to-day, I was making this same run, and at Gowan Station went into the telegraph-office for orders. There wasn't any, but Jasp. Ledley, the operator, said to me,

"'You've got a runaway couple on board, ain't you?'

"I didn't know and didn't care. It was not unusual, for, when Old Squire Ball was alive, Holdenburg, Indiana, just across the river from Trumanville, Kentucky, was a regular Gretna Green.

"Eloping couples from all this part of the country went to Holdenburg and the Old Squire tied the knots for them at all hours. I carried such couples nearly every trip, and they had long ceased to be a novelty. I told Ledley so.

"'Well,' he explained, 'this seems to be a somewhat unusual pair. A message just passed over the wire to the chief of police of Trumanville, telling him to search this train and arrest Agnes Downey, who is headed for Holdenburg with George Hopple.'

"I went back to the train and soon spotted the couple. She was a beauty, and I rather liked his looks. It was very evident what they thought of one another, for when I stopped to talk to them they looked decidedly bored.

"I rather enjoyed the situation, but

felt sorry for them, for I knew Chief Phelps prided himself on never letting any one get away from him. He would certainly carry out his instructions.

"Finally I said to them in an off hand way:

"You two are running away to get married, eh?"

"She flushed up in a minute and glaring at me, said:

"Why, no; of course not! The idea!"

"He was more to the point.

"I'd like to know what business that is of yours," was his demand.

"Oh, nothing," I replied, carelessly. "Maybe I am mistaken, but a message has been sent to the chief of police of Trumanville to arrest Agnes Downey—that's all."

"Oh, George, what shall we do?" she pleaded, but George didn't seem to know. He looked worried, so I let him figure on the proposition for a while and then told them I would do what I could for them. I wouldn't tell them what that was, but when we got to Rigdon I had a little pow-wow with Ed. Caldwell, the operator and agent.

"Then I called the frightened couple into the baggage-car and told them to finish the ride on the trunks and boxes and I might be able to sneak them through. They were as meek as martyrs and obeyed me implicitly. Caldwell, grinning from ear to ear, looked them over, made a record in his book, and handed me a couple of slips of paper.

"It was only a short run from Rigdon to Trumanville, so I let them fret till the town was in sight. Then I called the prospective groom's attention to a little scheme that I thought might pull them through. He almost wrung my hand off just to assure me of his appreciation, but I told him not to do that until he was safely past the guard at the depot and on the ferry to Holdenburg.

"Well, Chief Alex. Phelps was on hand all right, and so was a big crowd that had in some way got next to what was coming off. Some wag saw the shrinking couple in the baggage-car and gave the alarm. In ten seconds half the male population of the town was crowded around that car.

"Phelps plunged through the spectators and, peeping into the car, shouted:

"Are you George Hopple?"

"Yes," was the unterrified response.

"And is that young lady Miss Agnes Downey?"

"Yes."

"Well, I'm sorry to do it, but I shall have to detain her and send her back home on the next train."

"Oh, I guess you won't," George said calmly.

"Now the chief was not in the habit of taking any back talk, and this riled him somewhat.

"I'll show you whether I will or not."

"And with that he started to climb into the car.

"And I'll show you," George handed him back. "Do you know anything about Interstate Commerce?"

"What's that got to do with you and the young lady?"

"Everything. We're it."

"You're what?"

"Interstate Commerce. See these tags?"

"Till then no one had noticed that the youngsters had tags tied to their arms, and when George leaned over to give the chief a closer view of his, that official discovered that the article to which it was attached had been regularly and legally consigned, by express, prepaid, from the station-agent at Rigdon, Kentucky, to Squire Ball, at Holdenburg, Indiana. The young lady's tag read exactly the same way.

"The express wagon backed up to the car.

"How about it, chief?" asked the driver.

"Take 'em away," replied the custodian of the peace, doffing his hat. "I really didn't want to bother 'em any way."

"The couple climbed into the wagon and most of the crowd followed them across the ferry. I went, too, and was the 'best man.' There were no bridesmaids.

"I had forgotten the date, but she didn't. They are going to celebrate to-night, and as Caldwell and I can't attend, Mrs. Hopple came out to see us. Hopple sent us a message. He said that if they went through that way again, they would have to have four tags."

'Neath the Shade of the Old Water-Tank.

BY W. H. WILCOX.

THE TRUE STORY SERIES. This is the story of an eagle-eye's troubles with a fireman on the "Hinkey Pike." It is a yarn with a moral—and the moral is as plain as the nose on your face, so we won't print it here. The author may seem to have gone beyond the border line of truth. Not so. His story is based on what really happened, and instead of making it a cold recital of facts, he has served it up as if it were fiction, which makes the facts more interesting, and their perusal more pleasurable.

Windy's Recurrent Attacks of Appendicitis in the Region of the Heart, Suddenly Vanish When the Eagle-Eye Decides that It Is Best to Send for an Ambulance.

TRUE STORY, NUMBER FORTY-TWO.

HALLO, Punk!" said Hash-Bar Brown as Riley joined the group of spare men idling under the water-tank. "How did the 428 do last night?"

"Fine," said Riley; "she's a ball of fire. We came from Saunder's Siding to Topstone with a full train last night in twenty minutes, and the pointer never left the two-hundred mark."

"That's one of Punk's pipe-dreams," said Cyclone Smith. "Punk knows he couldn't keep a cook-stove hot, anyway, and he's tryin' to make us think he's a crackerjack."

"I can fire anything you can, anyway,

Smith. I've heard when you was firin' they had to assign you to switcher service because you kept tying up the road with no fog. If you don't believe the 428 stayed hot last night, ask Con McCaffery. He was runnin' her."

"I wouldn't believe Con if his mother was dyin'," said the boomer. "He's worse than you are."

"Well, then, ask Windy Sanderson. He was braking the head-end, and rode from Saunder's on the engine."

"Windy don't know when an engine's hot, anyway," contemptuously commented the boomer.

"He don't, eh? Well, he ought to. He fired two years on the B. and M., and one

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

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on the C. V. At least, that's what he told me, though I ain't succeeded in gettin' him froze onto the wooden end of the scoop yet."

"Oh, he fired on the B. and M., all right, and also on the C. V. I had him the first trip he made on the C. V., and he put it over me like a tent. It was the most sensible thing Windy ever did when he deserted the scoop for the side-door Pullman. He does make a passable brake-man, but as a fireman he was a decided failure."

"How did he put it over you on the C. V., boomer?" asked Hash-Bar.

"Well, you see, I was runnin' spare out of St. Albans, and they called me one Tuesday morning to go to White River with a train of wheat. I had a date with a girl in the restaurant at White River, if I could get there; and, naturally, I was delighted when the White River extra showed up. 'Was afraid I'd have to go over to Rouse's Point on the way-freight, but the extra was ordered out first.

"When I got over to the engine-house, they told me I was to have the 751, a big cross-compound from the Grand Trunk, and a new man named Sanderson for a fireman.

"I got the 751 ready, screwed down the grease-cups where they were full, filled the empty ones, filled the lubricator, oiled round, pulled out to the water-plug, and still no fireman showed up.

"I was about to go into the office to tell Gilbridé, the locomotive foreman, that I didn't have any fireman, when along comes Windy with a dinner-pail as big as a small trunk and a pair of eyes lookin' like the relics of a Swanton-drunk.

"'Hallo, matey,' says he, 'what kind of a hog have we got here? Is she any good?'

"'Good engine,' said I, 'if you can fire her.'

"'Well,' says Windy, 'I'm a new man here, just finished my fire-trial trips, but I'll keep her hot as I can.'

"'That's all any one can do,' I said; 'but I hope you keep 200 on her, because I've an engagement down to White River Junction to-night that I don't want to miss; and I don't want to be any sixteen hours on the road, either.'

"Windy took water, and we started for Italy yard after the train. I noticed then he didn't act very green with the scoop; and I commenced to pat myself on the back, thinking I'd have plenty of steam, for the 751 really was a good steamer, and most any one could fire her. I did my patting a little too soon, as I found out before we'd gone very far.

"We had a meet on the 411 at Milton, four stations south of St. Albans, 751 to take the siding; and if it hadn't been down-hill goin' into Milton Siding, we'd never got there without first blowin' her up hot. I stopped at the switch with 110 pounds of steam and just a bare flutter of water on the bottom gage.

"I spent most of the time at Milton while we waited for the



"I SPENT MOST OF THE TIME INSTRUCTING WINDY HOW TO FIRE THE HOG."



"I SHED MY TAILOR-MADE RAIMENT
AND SORROWFULLY GLUED
MYSELF TO THE SCOOP."

four - eleven, instructing Windy how to fire the hog so as to get the best results. He took it all in, askin' a few foolish questions and looking about as intelligent as a fat pig.

"From Milton to Essex Junction she did a pretty good job. Never went below 180, and most of the time I managed to keep two solid gages of water in the boiler.

"I was patting myself on the back again and building more air-castles, thinking that at last he'd got the hang of her; but those air-castles tumbled about my ears before we'd passed Jonesville. The 751 emitted a half-strangled grunt and expired, dead as a monkey-wrench, about a train-length south of the North Duxbury station, right on the steepest part of the hill.

"I said to myself, 'Weary, if you want to keep that date in White River, it's

plainly up to you to fire this hog up the hills,' so I shed my tailor-made raiment and sorrowfully glued myself to the scoop.

"From there to Roxbury, about forty miles, I shoveled coal, keepin' the pointer at the two-dollar mark. Windy took my seat and played engineer. I looked up at him a couple of times, and caught a queer sort of expression on his face, as though he wanted to laugh and didn't dare.

"It would have made me suspicious, but I was too anxious thinking whether or not we would get to White River in time for me to escort that waitress to the dance at West Lebanon.

"I hadn't fired an engine for a year or more, and had accumulated considerable fat gettin' ready for the cold weather they have up there; and the way I fried out was a fright. I shed water enough to half fill the tank. From Roxbury to White River Junction is forty-seven miles, practically

all down-hill, and I heaved a huge sigh of relief when we pitched over the summit.

"Say, the way I dropped that train down through East Granville and Braintree resembled a Kansas cyclone. Took a chance on the order-board being set at East Granville, and went down through there so fast the station looked like a blur. The 751 had considerable lost motion in her driving-boxes, and when we went past Braintree she was rolling so much that Windy was afraid to leave the seat.

"There he fairly hung with one arm round the corner of the cab, while the other had a strangle-hold on the head shack's neck.

"I pinched her down to about twenty miles an hour goin' into Randolph, expectin' to find orders there; and, sure enough, the board was out with a meet on two extras at Bethel.

"We got to Bethel, all right, and let one of the extras go by.

"But the other! The 402 had one of her usual balky spells, and was stalled somewhere between South Royalton and Bethel with a broken intercepting valve. We waited three hours and forty-five minutes for them to show up, which put all my hopes of meeting that waitress plumb into clear.

"Maybe I wasn't some mad. About all I did from there to White River was cuss the measly old railroad and chew my pipe-stem. By the time we got to West Hartford I had it chewed in two pieces.

"We finally got put up about 8.45, by which time the girl had been gone an hour. To make matters worse, she went under the escort of a Woodstock brakeman.

"Of course, there was nothing left for me to do then but eat and go to bed. I don't like to retire just after feeding, and Windy wasn't tired, so we stood on the veranda of the Junction House, talking to Batch, the fellow running the 417.

"Pretty soon along comes a B. and M. engineer and his fireman. I knew the eagle-eye, because he had shared my room at the Junction House the trip before. They both appeared to know Windy.

"He and the B. and M. smoke-agent sauntered into the drug-store for a couple of cigars, and while they were gone I asked the hoghead if he knew Windy very well.

"Sure, I know him," he said. "He

fired over on the B. and M. about four years."

"What?" says I, and you could have knocked me over with a feather.

"Why, yes," he says, "he fired for me for nearly two years out of Springfield. Got canned for boozin'."

"Well, maybe I wasn't some crazy to think of the way that crafty tallow-pot had put it over me. I didn't say a word, though. I just bided my time, and I says to myself, 'You'll earn your money goin' back, old-timer.'"

"We left White River the next morning with thirty-seven empties, and the way I pounded that engine was wicked. Didn't hook her up over half-stroke from the time we left till we stopped at the water-plug at Bethel, and Windy was kept too busy shovelin' coal to think of gettin' tired.

"While he was taking water, I suppose, he had a chance to think that keepin' her hot didn't agree with the way he acted going down. Anyway, we hardly got the tail-end over the north switch before he was apparently worrying again, and the pointer kept falling back, even with the injector shut off.

"Pretty soon he says: 'Say, matey, she's beatin' me pretty bad now. I don't know whether we'll get to Braintree without stalling or not.'"

"We had a meet at Braintree."

"Well," says I, "we'll go as far as we can; and when that steam's all gone, we'll stop and make some more."

"When we passed Randolph she was pretty low on fog, and was just about able to keep going.

"Windy looks up at me and says: 'Matey, if you don't take her soon, we'll die sure before we get to Braintree.'"

"I ain't paid to fire this engine," I said.

"About two miles south of Braintree south switch, I heard something fall, and then an awful yell. I turned my head quickly, and there was Windy, rolling around on the deck, throwing his arms around and yelling like an Indian.

"Oh, my side, my side!" he yelled, clutchin' at his overalls about where his heart is located, 'I think I got appendicitis!'

"His face was so black I couldn't see whether he was pale or not, but he acted

so like a balky compound that I began to feel alarmed. I hoisted him up on the seat, and fired the remaining two miles to Braintree, where we headed in to the side track. All the time Windy kept moaning and groaning like an engine with dry valves.

"There is one of those third-class saloons at Braintree where they sell bottled goods only, and I hustled over and bought half a pint of rum. Windy stowed that liquor away without a blink; and, when we pulled out after No. 9 had gone, he dropped down on deck and grabbed the shovel.

"I was goin' to fire her up to Roxbury; but he suddenly seemed so much alive that I concluded the liquor had cured him, so I stayed on the box.

"Gee! The way that engine steamed

from Braintree to Montpelier Junction! I hardly closed her stop all the way! We had to head in at Montpelier Junction and do some way work, and we were there so long the effects of the liquor had pretty well disappeared. I could see when we started out again that Windy had another tired streak comin' on, but he didn't complain any about his appendicitis until I shut off for the old water-plug at Middlesex.

"I'd hardly closed the throttle before he fell down on deck again with another spasm.

"What's the matter?' I said. 'Got another attack of appendicitis?'

"Yes,' he said. 'I guess I'm goin' to die this time, sure. Maybe,' he groaned, 'another half pint of that booze would save my life.'

"OH! MY SIDE! I THINK I GOT
APPENDICITIS!"



"I was good and suspicious by that time; and, though I had nearly a hundred dollars in my pocket, I said:

"'I'm sorry, Windy, but I blew my last thirty-five cents down at Braintree.'

"The head man hadn't witnessed the Braintree spasm, being back in the hack at the time. But he was a good-hearted lad, and he hiked off for another pint, there bein' one of those third-class dumps about a mile from the water-tank.

"I took water while he was gone, and when he returned we started out with the whole half pint distributed around Windy's interior.

"The run from there to Essex Junction was a repetition of the one from Braintree to Montpelier Junction. Couldn't knock the fog off that engine, no matter how hard she worked.

"Just before we arrived at Essex, Windy commenced to get nervous again, which I construed as a signal that he was looking for another 'wetting' down; and, sure enough, we hardly stopped for the head man to throw the switch when he had another spell.

"I didn't pay any attention to him until we had cut the crossings and stopped back of the train-shed.

"'Say, feller,' says I, 'they have a hos-

pital in this burg; I'm goin' over to the office to phone for the ambulance for you.'

"'What?' says Windy, as he stopped burrowing in the coal. He looked alarmed, and his lower jaw dropped till it looked as if it was hung to his ears by a string.

"'I said I'm goin' to telephone for an ambulance for you,' I repeated.

"'I don't think I need any doctors now,' said Windy. 'I feel pretty good. The pain has suddenly stopped, and I guess I can get to St. Albans all right.'

"'Man,' said I, 'you're pretty sick. You're liable to die before we get to Colchester, and what would I do with a dead fireman on my hands?'

"'I ain't goin' to die, matey,' says he, 'and I'll keep her red-hot all the way in.'

"'Well,' says I, 'if—'

"'Hey, boomer,' interrupted the call-boy, shoving his head out the office window, 'we want you for the wrecker: The 582 has a car crossways at Yalesville, plugging both irons. Hurry up!'

"'All right!' shouted the boomer, starting for his locker on the run.

"'Hey, boomer!' yelled Hash-Bar, 'how'd you make St. Albans?'

"'She was the bull o' the woods,' came floating back over his shoulder as he disappeared within the engine-house."

TRAINING MOTORMEN.

THE selection and training of motormen to operate a fast and frequent service, such as that given by the Hudson and Manhattan Railroad in the North River tubes, requires special precautions. An interesting feature of the employment methods of this company, says the *Electric Railway Journal*, is the establishment of an intermediate grade in which all candidates for the position of motorman must serve for a considerable period of time before being placed in charge of regular trains.

This grade, which is that of switchman, corresponds in some respects to that of fireman on the steam roads. It provides a means of training the men in every phase of their future duties much more thoroughly than would be possible by a short course of instruction in the shops or schoolroom, and no danger to passengers is incurred through trusting an inexperienced man with the operation of a regular train even under the guidance of an instructor.

While serving as a switchman the new man has an opportunity of learning first hand the operation and construction of the equipment, how to locate and find trouble, the meaning of signal indications, and the actual "feeling" of a car or train in motion. In the meanwhile he is earning a living-wage and doing necessary work incident to the operation of the regular trains.

Only the best men are willing to undertake a switchman's work as a step toward promotion to the coveted position of motorman.

Another meritorious feature of the plan is that the list of extra motormen is kept down to a minimum, since there are always available switchmen who are qualified to operate trains when required in emergencies.

A significant feature of this company's employment practise is the fact that it prefers to engage as motormen men who have held similar positions on high-speed electric railways or who have been employed on steam railroads.



The Birth of a Flier.

BY OLIN CRAWFORD.

A GREAT flier is a demand satisfied. Every important flier is put on the road for the purpose of meeting the wishes of the public. Most fliers are run at a loss for a considerable period after they are inaugurated. Some never pay at all. A flier represents the work of many men in many different parts of the country. It is one of the finest examples of coordination known to modern business. This article will tell you how it is brought about.

What Has To Be Done When a Train Is Hurriedly Put on the Rails To Break Records in a Run Half-Way Across the Continent.

TWENTY-FOUR hours between New York and St. Louis!" That was a slogan of St. Louis business men for years. They kept dinning it into the ears of the officers of the railroads. For years the men who rule the highways of commerce between those points shook their heads.

"The amount of passenger traffic between the two cities doesn't justify such an expensive undertaking," they declared.

Said the men of the New York Central:

"From New York to St. Louis by our lines is eleven hundred and seventy-one miles. A twenty-four-hour train would have to be run at an average speed of forty-eight miles an hour, including all stops. Two hundred and eighty-four miles of the route are by single track, and every division for the entire distance is already crowded with traffic."

Other roads found the problem equally

difficult. By the Pennsylvania the distance was one hundred and sixteen miles shorter than by way of Albany and Cleveland, but the company had its heavy grades to consider. It is still an unsettled question whether those grades do not impose a handicap equal to that of the roundabout course followed by the Central's water-level lines.

The Cry from St. Louis.

Still, St. Louis kept up its cry, and at last the railroad men began to study the matter. Certainly such a train would not pay at the beginning—not directly, at least. They were sure of that.

There were, however, other possible profits to think about. The train would be a big advertisement; and, more than that, it would stimulate the movements of freight between the two cities.

One day last October the New York Central, after long consideration of the expense of running a regular train at such

a speed for such a distance, decided to put the twenty-four-hour flier into service. A meeting was called. The president of the company, the vice-presidents, and the general managers of the Central, the Lake Shore, and the Big Four were there.

Settling the Details.

One of the first and most important questions before them was that of the starting and arriving times at the two terminals. What hours would interfere the least with the rest of the traffic on the lines, what hours would be most satisfactory to the business men, and what hours would meet the most important railroad connections at the St. Louis terminal?

There were sure to be many differences of opinion over each of these questions, and it took no end of discussion to decide them. And when at last starting and arriving times of the east-bound train and the west-bound were fixed, came the difficult matter of fixing the time by divisions.

The time between the two cities must be cut four hours and fifteen minutes, and much of that cut, if the Big Four was to do its share of the fast running, must be borne by that road.

Already the fastest St. Louis train ran close to the limit of speed for long distance over the Central and the Lake Shore sections of the route. Some reduction could be made in the time between New York and Cleveland, but the Big Four, in spite of its long stretch of single track, must force the flier far faster than any regular train had ever run over its line.

Big Four's Share.

"We can run the train between New York and Cleveland at the speed of our Twentieth Century," said C. F. Daly, the vice-president in charge of the traffic department. "The Big Four will have to do the rest."

The general manager of the Big Four found that he would have to attend to an hour and thirty-five minutes of the cut on his line, extending from Cleveland to St. Louis. It was a good deal of a proposition, with a single-track road all the way from Cleveland to Indianapolis

crowded with passenger locals and freights, and a still heavier traffic on the double track between Indianapolis and St. Louis.

The general managers returned to their offices, and each called in his division superintendents to pro-rate the time on each division.

On the Hudson division, between New York and Albany, which is not one of the hardest divisions of the system for speed on account of its many curves, the time was cut twenty-one minutes for the west-bound train. From Albany to Syracuse a cut of thirty-three minutes was made, and fifteen minutes from Syracuse to Rochester.

From Rochester to Cleveland, without a single scheduled stop, the time was cut an hour and thirty-one minutes, and the Big Four was left with the problem of making up the remainder. It was a problem worth tackling.

Switching the Schedule.

When the running time was at last fixed in all its details, the schedules of more than forty trains had been changed to make room for the flier.

The news of the inauguration of a record-breaker is sure to cause a stir from end to end of a railroad. Long before the new train was put into service it was the main topic for gossip from the president's office to the roundhouses. For days among the high officials there was speculation as to what its effect would be upon the business of the company, of what it would cost, and of how the time schedule would suit its patrons.

Among the engineers especially it was a live subject, for it would mean promotion for some of them.

Making History.

When November 7 came, which marked the installation of the flier, the heads of the traffic department in New York were all on hand to see it off on its Sunday run. An electric engine drew the train out through the yards and the tunnel to High Bridge, where a quick change was made to one of the highest type of high-speed steam-locomotives—weighing, with its tender, 428,700 pounds.

Then up the Hudson to Albany flew the train that was making railroad history, the fastest flier for the distance the world had ever known. Fifty miles an hour on an average for the entire division it tore along, and sixty miles and more on straight runs.

Less than three minutes to change engines at Albany, then on to Syracuse at increasing speed. Again the same quick change of engines, and again at Rochester.

At Buffalo there is no stop for passengers, but it runs around the city to Buffalo Compromise for another three-minute change of engines, then flies along the straight Lake Shore track to Cleveland at a speed sometimes reaching seventy miles an hour. Another engine at Cleveland, and then the most doubtful part of the journey begins.

The Half-Way Line.

Almost twelve hours of the twenty-four have passed, and the train has been on time to the minute at every point, but the two hundred and eighty-four miles of single track between Cleveland and Indianapolis lie ahead of it. The general manager of the Big Four has arranged a schedule calling for an average speed, including stops, of forty-seven miles an hour for the entire stretch of that slender highway.

Allowing for stops and reduced time running through towns and around curves, an average speed of forty-seven miles means that sixty-five and even seventy miles an hour must be reached on straight stretches in the open country. That is going some on a single track already heavily loaded with freight and passenger trains.

But in the dark morning hours the record-breaker tore on through towns and villages and farms, and past long lines of side-tracked traffic, without a hitch and still on time to the minute. Long before daylight though it was, sometimes the glimmering lights of a station would show a little crowd of people gathered to see the train flash by.

There must have been faces peering from the windows of many a farmhouse in Ohio and Indiana that night to see the Southwestern Limited make a world's rec-

ord. For it is out in the country districts that that sort of thing is appreciated.

When the train left the Grand Central Station in New York, nobody seemed to take the slightest interest, outside of the railroad officials. There was no crowd at the gate to see it start.

Where They Notice.

In fact, almost the only person there was an employee of a rival road, who had been sent to count the passengers. But out in Indiana, as daylight came, the crowds grew greater.

It was a gala day in some of the little towns, where the flier roared by groups of cheering people. At Indianapolis five hundred people had gathered on the station-platform.

The long stretch of single track had been passed without a mishap, and the flier was still on time. It was not until the last lap of the long run had been reached that trouble came. At Mattoon, where a stop was made for a change of engines, it was twenty minutes behind time.

But there were still one hundred and twenty-four miles ahead, and it pulled in to St. Louis at 1.45 P.M., the exact time the schedule called for. From Cleveland, five hundred and thirty-seven miles away, only three stops had been made—three minutes at each place, to change engines.

Beating the Schedule.

That morning the east-bound twenty-four-hour train had pulled into New York ten minutes ahead of its schedule.

It had taken more than a month for the railroad officials to study out the problems in the way of putting that train into service. During about the same length of time the officials of the Pennsylvania, which put a twenty-four-hour St. Louis train into service on the same day over its shorter line, had been studying problems almost as difficult. When a road decides to put a record-breaker into service, it doesn't take a rival road long to get the news.

It is sure to come to it, through one mysterious channel or another in plenty of time for it to follow suit if it wants to. It was the same with the eighteen-hour

New York-Chicago trains. The Central and the Pennsylvania started the service on the same day, yet there is no agreement between the roads for the interchange of news of such plans.

Rivals on the Job.

Seven years ago, when the New York Central put on its Twentieth Century train between New York and Chicago, which for the first year made the nine hundred and eighty miles in twenty hours, establishing a world's record for the distance, there was some doubt as to whether such fast time would be possible. To convince themselves, the officials ran a test train over the road, consisting of two ordinary passenger-cars to give weight and two private cars. The test train made the run in sixteen hours, and the doubters were satisfied.

Then forty-eight trains were forced onto new time schedules to make way for the new flier, and the record-breaking service was inaugurated. The first Twentieth Century to Chicago got into Elkhart and Toledo from twenty to thirty minutes ahead of time, and the officials on board were taken through the streets of those two cities in automobiles which ran through lanes of cheering people.

A year later, when the time was cut to eighteen hours, the skeptics rose up in alarm.

"A menace to life!" was the cry. "Running a train at such speed is the next thing to murder!"

Not Near the Limit.

But as a matter of fact, eighteen hours is far from the limit of speed at which a regular train might be run over the road. The New York Central's officials believe it possible to run a train from New York to Chicago in safety in fourteen hours.

That would be at an average speed of seventy miles an hour, including stops. Such an average speed would mean an even greater speed for a good part of the way, but the company has no doubt that it could run a train safely for many miles at a stretch at eighty miles an hour.

A fourteen-hour New York-Chicago train, however, would be run at a ruinous

loss. Even the Twentieth Century has eaten up hundreds of thousands of dollars more than it has brought into the company's coffers.

For the first two or three years it meant a loss of probably at least one thousand dollars a day. Nobody knows exactly what the figures were.

With two Twentieth Centuries a day, an east-bound and a west-bound, that would have meant a loss of close to three-quarters of a million a year. So is it any wonder that the officials ponder a long time before they yield to the demands for a new long-distance record-breaker?

Losses and Rewards.

But there is some consolation for the losses incurred through such a train. It was found in the case of the Twentieth Century that there was a steady gain in the number of passengers, and that the losses were pretty sure to be wiped out eventually.

While at first the Century carried only from twenty to thirty passengers a day, it now carries three times as many.

Then, too, it was observed that the new train immediately stimulated the movements of freights between the two cities. It was the natural result of putting the business elements of the cities within easier reach of each other.

Just what it costs to run such a record-breaker the railroads would give a good deal to find out. Dozens of expert accountants—the best that could be found—have struggled with the problem in vain.

Of course, it is a simple matter to reckon on the wages of the employees on board and the cost of fuel, but they amount to a very small part of the expenses to be charged against the train. There is the wear and tear upon rails, road-bed, and rolling-stock—an expense that grows greater and greater with increasing speed.

Getting at the Cost.

Then there is the very important expense incurred through losses to other trains that have been affected by the flier. And, besides, the train must bear its share of the expenses of maintaining the road.

So difficult is it to reach any idea of

what these expenses are that the company is not sure whether the Twentieth Century has come to be a paying investment or not.

The receipts from each of the two daily trains, the east-bound and the west-bound, are considerably more than two thousand dollars a day, or more than a million and a half a year from both. So, with the company in doubt as to whether there is any profit left, probably the expense of running the train comes not a great way from that figure.

Even the cost of the cars and equipment of a record-breaking train amounts to a large sum. The great locomotive that draws it costs twenty-two thousand dollars, and it takes nine such engines to draw the twenty-four-hour St. Louis train.

For such a train the sleeping-cars must be of the best. Twenty thousand dollars is often spent on a single one. The com-

pany does not stint itself in fitting out the pride of the road.

And All the Luxuries.

There must be all the luxuries. There must be a barber, a ladies' maid, a manicurist, and a stenographer, in addition to the usual force of enginemen, baggage-man, stewards, cooks, waiters, trainmen, conductors, and porters. A passenger never travels so well as on a record-breaker.

On one such train even the unpleasantness of getting in late has its consolations. If more than fifty minutes behind time, the disgruntled passenger is cheered by receiving his fare back at the rate of a dollar for every hour lost. There are many more disagreeable ways of passing time than riding on a record-breaker—even if it does cost something.

SOME FAMOUS "TRAVELING PUZZLES."

The Seven Bridges of Königsberg and Other Mathematical Puzzles and Chess Problems Which Have Attracted the Keenest Minds for Many Ages.

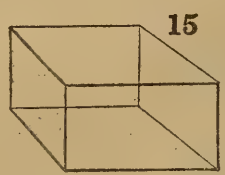
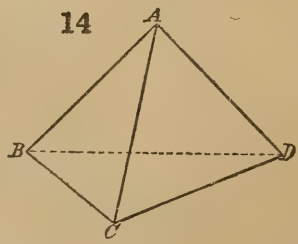
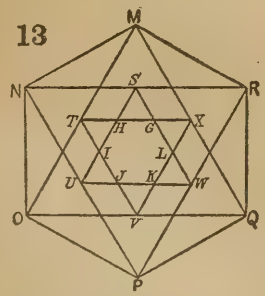
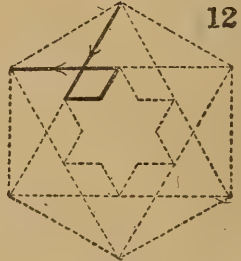
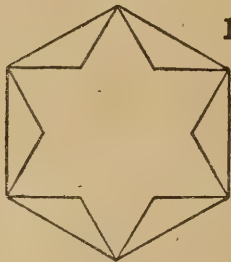
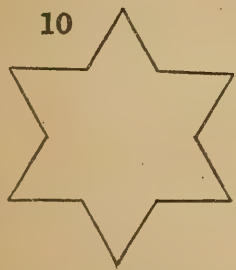
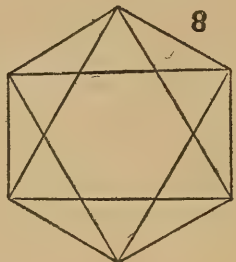
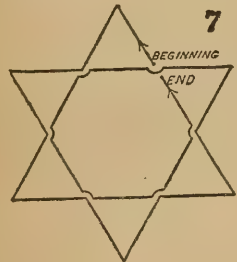
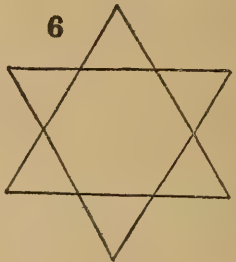
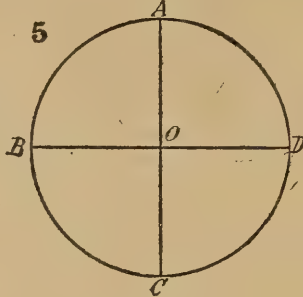
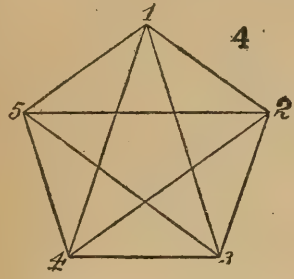
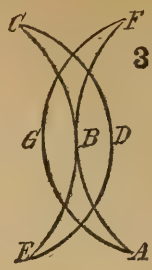
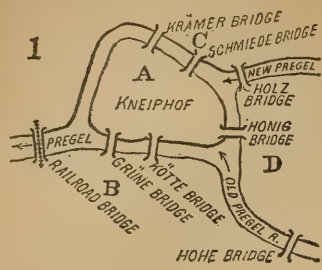
THE ancient and university town of Königsberg is situated on the river Pregel, which here forms an island called Kneiphof. There are seven bridges over the river, five of which connect with the island, says J. F. Springer, in a recent number of the *Scientific American*. In the earlier part of the nineteenth century a discussion arose as to whether it were possible for a person to pass over all the bridges in one continuous trip and without covering the same path twice. In fact, this problem attracted the attention of the celebrated mathematician Euler.

In order to understand the question clearly, refer to the map. The start may be made from any point. The problem is really insoluble, try however you will. If it be considered allowable to cross the Pregel (page 268) by the railroad bridge below the town, the problem may readily be solved. Thus, beginning at a point on *D* one passes over the Holz Bridge, then over the Schmiede Bridge to the island, then back to *C* by the Krämer Bridge. One now makes a detour, passing over the Pregel from *C* to *B* by

the railroad bridge, then passes to the island by the Grüne Bridge, returns over the Kötte Bridge, and goes over the Hohe Bridge from *B* to *D*, and finally completes the journey by crossing the Honig Bridge onto the island. Thus, seven—in fact, eight—bridges have now been crossed and no part of the path has been covered twice.

This type of problem may fittingly be termed a *traveling puzzle*. It is in reality a very ancient kind of thing. Thus, there has come down to us from the time of Pythagoras, who flourished in the sixth century before the present era, a very simple example in the shape of the Pythagorean star, an illustration of which is annexed, Fig. 2. This figure may readily be traced by one continuous line and without duplication of the path.

A story is told to the general effect that a disciple of Pythagoras once fell sick at an inn, where he was cared for very kindly by the innkeeper. Instead of getting better, however, he grew worse. At last, with the expectation of dying and being unable to repay his kind host, the Pythagorean asked



Courtesy of the Scientific American.

for a board. When this was brought, he traced out the single-line star. Giving this to the innkeeper, he desired him to display it outside. Some time after his burial, a stranger happened along. Upon observing the star, he made inquiry, and was informed of the particulars related. He then, in order no doubt to make the story complete, handsomely rewarded the innkeeper for the unselfish care that he had bestowed on the unfortunate Pythagorean.

Another figure of the single-line type is that known as Mohammed's signature. This is shown in the annexed drawing, Fig. 3. It is understood to have been drawn by Mohammed upon the sand by a continuous and unrepeatable movement of the point of his simitar. Beginning at *A* and following the course indicated by the letters *ABCDEF FGA*, one may see how it was possible to accomplish this result.

An extension of the Pythagorean star is shown in Fig. 4. This may be solved by following the routes indicated by 1 2 3 4 5 1 4 2 5 3 1, 1 2 3 4 5 1 3 5 2 4 1, and 1 4 3 1 5 4 2 5 3 2 1. In these it will be noticed that two or more exterior sides are taken consecutively. If it be required that this shall not be the case, the problem is perhaps somewhat more difficult. Nevertheless, it is soluble, as may be seen by following out the order indicated by 1 4 3 1 5 3 2 5 4 2 1.

We must not be deceived by the apparent simplicity of a given case of this type of puzzle. Thus Fig. 5 discloses the very simple figure made by a circumference and two diameters. Try as you will, you cannot cover this figure by a continuous line that nowhere duplicates itself. On the other hand, figures that are apparently very complicated frequently admit of a ready solution.

Thus, the six-pointed star shown in Fig. 6 may be quickly solved by the method shown in Fig. 7. To work the puzzle given by Fig.

8—that is, the star of Fig. 6 with the including polygon—observe Fig. 7. This does not in its present form, perhaps, suggest a solution, for the reason that beginning and ending at the point indicated, we have no opportunity to draw the inclosing hexagon, either as a preliminary to starting or as a sequel to finishing. But at the moment when we have arrived at the tip of *any* of the six points of the star we may draw this hexagon, and then continue according to Fig. 7.

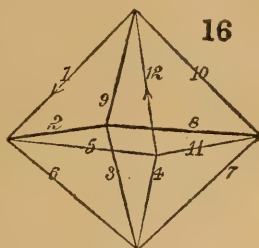
Refer now to Fig. 9. This is apparently a very complicated design. There is a very

simple solution, however, which Figs. 10, 11, and 12 will assist in developing. It is easy to see how to draw Fig. 10, no matter where we elect to start. If we start at the tip of a point, the including polygon of Fig. 9 may easily be drawn as a preliminary or a sequel (Fig. 11). There is just one thing to see, and that is how the remainder of Fig. 9 may easily be

made by forming a kind of loop at each of the inner points, *A, B, C, D, E, F* (Fig. 11). The method of making this loop is indicated in Fig. 12.

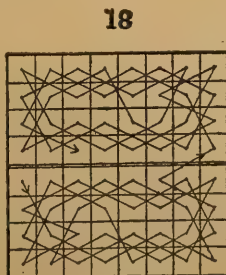
To draw Fig. 13, we proceed as per Fig. 9, except that the moment of arrival at *any* one of the points, *G, H, I, J, K, L*, is selected as the time to draw the innermost hexagon. A complete solution is afforded by the course indicated by *M T H S N U I T O V J U P W K V Q X L W R S G H I J K L G X M N O P Q R M*. The heavy letters indicate where the innermost and outermost hexagons are added.

Comparing Figs. 5 and 13, it may seem hard to realize that one puzzle may be worked and the other not. Perhaps some readers may be inclined to think Fig. 5 soluble. An actual solution will of course prove that they are right. In the meantime, the following considerations may prove of interest: There are in all five junction points—



17

37	62	43	56	35	60	41	50
44	55	36	61	42	49	34	59
63	38	53	46	57	40	51	48
54	45	64	39	52	47	58	33
1	26	15	20	7	32	13	22
16	19	8	25	14	21	6	31
27	2	17	10	29	4	23	12
18	9	28	3	24	11	30	5



19

50	11	24	63	14	37	26	35
23	62	51	12	25	34	15	38
10	49	64	21	40	13	36	27
61	22	9	52	33	28	39	16
48	7	60	1	20	41	54	29
59	4	45	8	53	32	17	42
6	47	2	57	44	19	30	55
3	58	5	46	31	56	43	18

O, A, B, C, D. If we do not start or end at such a point, we must recede from it for every approach; and conversely, for every recession there must have been a previous approach. Approaches and departures are thus paired off.

At a starting point, however, it is possible to have a departure without a previous approach; this would occur when we begin; and only then. Likewise at a finishing point, we may have an approach without a following departure; this would occur at the end, and only then. That is to say, there cannot be more than two points (the start and finish) where an odd number of lines join. In Fig. 5 there are *four* such points—*A, B, C, D.* This shows sufficient reason for pronouncing this figure insoluble.

Let us turn now to solid bodies, and look at some of the simpler cases: Take the tetrahedron shown in Fig. 14. It is certainly a matter of indifference at which vertex we begin, so we start at *A.* We have the choice of three beginnings. It is also evidently a matter of indifference which of those we follow, so we pass to *B.* Here again the two possible choices are alike, so we go to *C.* Here the two routes lead to different results—*C A* completing a triangle (*ABC*) and *C D*—closing no figure. First we try *CA.* Arrived at *A,* we are compelled to go to *D.* We have now two lines to draw—*DB* and *DC.* We may cover one, but not both. So then we return to *C* and try *CD.* Arrived at *D,* we see that if we go to *B* we shall be unable to go any farther. So then we go to *A,* and thus are forced to *C.* Here we stop, with *DB* undrawn. Referring, however, to the discussion of Fig. 5, we observe that the tetrahedron comes under the head of the impossible figures, as there are four points where an odd number of lines join, viz., *A, B, C, D.*

Fig. 15 is likewise an insoluble case, having eight points where three lines join. Fig. 16

is an apparent advance in complication. But we observe that all six vertices are junction points for an even number of lines. It is, in fact, a soluble case, as may be seen by following the course indicated by the numerals.

Another variety of this same general class of puzzle is the problem which requires the knight to start from a position on the chess-board and cover the whole board by a continuous series of moves, no position to be taken more than once. A convenient way of trying this puzzle is to rule with a sharp instrument on a slate the sixty-four squares of the chessboard. Wherever you elect to start the knight, you mark 1. His next position you mark 2, and so on. The slate enables false starts and errors to be readily corrected. This kind of puzzle has attracted a good deal of attention, and has received a multitude of solutions. Thus we may instance the solution given in Fig. 17. Here the lower half of the board is covered before any beginning is made with the upper half. The two halves are precisely symmetrical with each other, as may be seen by referring to Fig. 18, where the path of the knight is indicated by a continuous line. This division of the solution into two duplicates is not necessary, but is an added refinement. In one sense it simplifies matters, as we have but half the board actually to solve.

We are restricted, however, as to the point of termination. Thus in the present example, the point of beginning, 1, having been determined, the point 33—the beginning of the second half—is thereby fixed, so 32 must come where it is at present or must be at position 6. Fig. 19 is an illustration of a solution where the resulting arrangement of figures has some of the properties of a magic square. Thus every column and every horizontal line sums up 260. If the diagonals each totaled the same number, 260, then the whole would form a perfect magic square.

FLANNIGAN'S ASSISTANCE.

IN nearly every yard, of any considerable size, on Western lines you will find a son of Erin, slow of gait and bent with age, one of the fast disappearing reminders of the stalwarts "who built the road," whose duty is to keep the platform and yard cleaned up.

The other day as one of these old fellows—whom we will call Flannigan—was approaching a group of telegraph department men on a passenger platform, one of the youngsters—he only entered the service in '81—bet that Flannigan would not lend a hand to assist in anything with which the road master was not connected. The bet was

taken by another of the party, who stopped Flannigan and said:

"Mister Flannigan, we have three or four barrels of vitriol and several boxes of telegraph supplies over at the freight house, which we want brought over here, and we are figuring on taking one of the baggage trucks and hitching up a few men to it to haul our stuff over. We have a pretty good team in sight; Murphy here and O'Brien and Sullivan, but we should have one more. Will you help us?"

"Shure Oi will," says Flannigan, "Oi'll drive."—*Rock Island Employes' Magazine.*

BREAKING THE COMBINE.

BY WILLIAM S. WRIGHT.

When Men Are Bound Together for No
Good Purpose, It Is Well To Interfere.

CHAPTER I.

In Union There's Strength.



FROM the clock with the hard and judicial face, perched high above the judicial bench, came a sudden, single *clack!* like a rap of the judicial gavel.

"Half after twelve, 'tis," said Officer Ahearne, of the Seventeenth Police Court Squad, glancing upward, "an' his honor adjourned fifteen minutes or more. A slack mornin' for the old Sivinteenth, Mr. Leigh."

Leigh, the sole remaining representative of the press in the court-room, nodded absently. He was making a rapid revision of his last batch of "copy," and a messenger boy from the *Evening Record* fidgeted at his elbow.

Ahearne unbuttoned his blouse and leaned luxuriantly against the railing that divided the law from the laity.

"Three plain drunks," he went on, checking off on his fingers the cases that had just been decided. "Wan a disorderly, wan in the thurrd degree, wan attempted intry, wan from th' person, two pettys, two on suspicion; an' if me pair of buckos ain't of the warst, Nature fooled thim whin she giv' thim th' faces she did; foive eyictions, an' a neighborly dispute, wid flat-irons, between a brace uv laadies over their kids. A scant marning, indeed."

The other again nodded, sealed and handed the big "copy" envelope to the boy, stretched himself mentally and physically, and gathered up pencils and notes, saying:

"You ought, anyhow, to be glad that the Seventeenth's improving, Pat?"

The man in brass and blue eyed the reporter in a meditative fashion.

"I s'pose so," he admitted; "but if there was less morals in the old days, there was more money—fees for th' clerks an' space fer ye boys an' th' small services rindered by obligin' coort officers was cheerfully paid for. Lawbreaking, Mr. Leigh, is a nefarious nicessity whin ye come to look at it through our eyes, ye'll admit."

"There's something in that, Pat," said the other encouragingly, as he jotted on a scrap of paper, "The Reform of the Seventeenth—Sunday supplement." For the news-nose of the trained reporter scents a "story" afar off or much hidden.

"Yis, sir," went on Ahearne, "I remember th' toime—'twas before ye came among us—whin the line of overnight arrists would be str-rung out before his honor, all along th' wall to th' rear av the room an' half-way up t'other side.

"It used to take foive or six of us to kape th' pris'ners from minglin' promiscuous like wid th' audience. Wan marnin' whin Judge Bradly—they used to call him 'Bull Bradly' in those days, because of that hair-raisin' voice of his"—Leigh made an instant note of the fact—"a woman had hi-steericks. In th' thriflin' racket that followed a half-dozen of the giants av th' line broke guard an' disappeared among th' spectators, who, by the token, in thim days consisted mostly av shyster lawyers, professional bondsmen, an' cheap crooks.

"O'i'm lookin' ye over," roared his honor at the audience, whin he wus towld av th' situation, an' th' ceilin' cracked wid

the bang av th' voice of him. 'Oi'm lookin' ye over, an' I see twinty av yez that's out av jail be th' grace av good luck an' bad law. Onless,' shouts he—an' two windy-panes shattered thimselves—'onless thim pris'ners is back in th' line on th' instant, Oi'll have twelve of yez arristed on th' spot for—yez know what! Officer, let no person leave th' coort-room; clerk, make out wan dozen warrants, leavin' names blank.'"

"Good for 'Bull,'" commented Leigh. "And what was the result?"

"Th' six escaped prisoners was th' result," grinned Ahearne, "an—"

The insistent and muffled ring of the telephone-bell came from the clerk's office to the right of the court-room, and Ahearne hastened to reply.

"Th' call's fer you, Mr. Leigh," said he, as he reappeared; "an' th' gint on the other ind is a thrifle aisy on th' talk.

"Who are yez?" sez I.

"None av yer bizness," sez he. "Tell Mr. Leigh I want to talk to him."

"Yer name, sir?" sez I.

"Hold yer tongue an' I'll hold the woire," sez he, making a remark not for publication."

Leigh smiled and produced a cigar, which Ahearne eyed critically, but accepted gratefully. The reporter took up the telephone receiver.

"That you, Billy?" came from the other end.

"Yes. Who's this?"

"Staynes, of the *Sentinel*."

"Hallo, Sam! How is it?"

"Good! Can you drop in to see me this evening after I've given out assignments?"

"Certainly. Anything up?"

"Tell you when we meet. S'long."

Brevity is the soul of conversation in the newspaper world during working hours. Leigh replaced the receiver, returned to the court-room, and sent Ahearne into the judicial sanctum to ask his honor if there was any late news worth the writing. His honor, who, in company with a cigar and a friend, was giving an hour's grace to dilatory applicants for advice or warrants, sent out word that there was nothing doing.

The scene of these happenings is the big, sprawling, and queerly circumstanced

—geographically speaking—city of Martport, whose southern foot is bathed by the waters of the Atlantic, the brineness of which is scarcely tempered by the flood of the adjoining great river. Martport, as it is now, is a city of absorptions. Time was when its boundaries were the long, narrow, queerly shaped peninsula, in which the business portion of the community is at present located.

But by reason of its situation it gradually sucked in the commerce of the coast round about. Hence, smaller and neighboring communities found it to their advantage to permit themselves to be merged into the larger center. They lost their individuality by the process, but gained in wealth and prestige.

So the Martport of to-day consists of five sections—that is: Martport proper, and North End, which was, ere the era of expansion began; the consolidated communities, Eastbay, The Marches, Highburg, and The Beaches.

Each of these latter boroughs retains its name for social and business purposes. But, politically and in other ways, they are just Martport—nothing more nor less.

The newspapers of Martport have for a good many years taken no cognizance of the fact that some sections of the city now are growing, so far as the alinement of their reportorial forces is concerned.

News-gathering is no haphazard occupation, as a good many people seem to imagine. Without going at length into the disposition of the working forces of a newspaper office, it is sufficient to say that the staff reporters are divided into two classes, viz.: "Department" or "district," and again, "office" or "emergency" men.

So far as the members of the first-named class are concerned, they are stationed at points or places where news normally drifts or centers, such as police headquarters, courts of law, precinct station-houses, river or harbor fronts, city halls, etc. Society, yacht, racing, sporting, and other "editors" are also and in reality department reporters. The emergency men hunt up information relative to any news item or "tip" that comes into the office outside of the "department" channels. In cases, too, where the department men find that they are facing a story that they cannot handle by them-

selves, such as a big fire, a sensational murder, or what not, emergency reporters are sent out to assist them.

In some instances, where the territory "covered"—to use the technical term—by the reporters is thinly populated, one man is given full charge therein, and is supposed to look after, not only the "departments," but such general news as may accrue outside of these. In almost every case, where the hunt for news obtains in either department or territories, the reporters representing the several newspapers find it to their advantage to form a "combination."

The work is apportioned out among the men, and then the resultant news is pooled and distributed. Each man getting the benefit of the labors of his colleagues, and he himself adding his quota to the general fund.

The combination system works all right if those taking part in it are honest. But the contrary is the case if the parties to the "merger" are tempted to loaf. It is an easy matter, under such circumstances, to do a certain amount of work—just enough to save the faces of the members of the combination—and stifle a whole lot of good news that normally should appear in print.

In other words, the combination, like the typical trust, can limit the output of news to the detriment of the journalistic industry and the public as a whole.

The borough of Highburg was originally a mere hamlet. By degrees it resolved itself into the manufacturing section of the big city—a conglomeration of huge factories and machine-shops, striped and dotted with streets or clusters of tall, grimy tenements. The population consists of immigrants who, valuable on the score of their brawn and numbers, are nevertheless undesirable in a good many other respects.

Nevertheless, Highburg was reckoned by the newspapers as a mere district. One reporter was deemed sufficient to "cover" it.

Appeals to the city editors for more help had in the past been fruitless, and the outcome thereof was that Highburg reporters had in self-defense formed a combination of a rock-ribbed sort, in order that the territory might be compelled to yield a measurable supply of news.

With the passing of time, however, the combination began to develop evils. Three-fourths of the happenings of the borough that should have been put on record never saw light, being stifled at birth.

The members of the combine were nearly all old hands. They were hand and glove with the local police captains, hobnobbed with magistrates and warrant-clerks, and stood in with court officers, telephone operators, and district politicians.

The correct attitude of the newspaper man in regard to public officials is ever that of one of the parties to an armed truce. Too much friendship between the press and the other side of the house is apt to lead to complications.

Because of the chummy footing on which the reporters stood in regard to Highburg people in authority, many queer things went on within that borough's limits that should have been brought to light. Those who were responsible for them had no fear of newspapers; and many of the immune had proved their gratitude by assisting in the process of freezing out a new reporter, who, of his own volition, or acting under instructions from his paper, tried to work independently of the combine.

In self-defense the city editor of the new man would recall the latter and appoint a member of the combination in his place. Immediately thereafter the output of news from Highburg would become scant as to quantity, and flat and alike in quality.

CHAPTER II.

Leigh Sees Staynes.

LEIGH called on Staynes that evening at about seven. He found him sitting at his desk in the *Sentinel* building. The editor was void of collar, necktie, coat, and vest. He was puffing at a reekful brier pipe and glancing over a late batch of the thin, yellow tissue paper on which come Associated Press despatches.

Near him were other coatless men, hard at work writing matter for the morning paper. A dozen or two reporters were lounging at their desks, awaiting the unexpected. There was an almost incessant

jingling of the telephone-bells, and a faint rumble from the presses in the basement.

The two men greeted each other briefly.

"Billy," said Staynes, "you are still a fixture on the *Record*, I suppose?"

"I guess so," said Leigh. "Unless the old man makes a deal with the *Enterprise*. You know, they've been trying to rake him in on a consolidation basis."

The "old man" was the proprietor of the *Record*, William J. Bevins, once mayor of Martport, whose newspaper responsibilities were tempered with dabblings in real estate and after-dinner speeches.

"No chance of that," said Staynes. "Bevins always did know a good thing when he had it, and knows enough to stick to it. That's why he made an iron-bound contract with you, Billy."

"The cigars are on me, Sam," was the laughing reply. "But did you bring me down here to chuck bouquets at me?"

"As a preliminary," said Staynes, "I'm going to spring the old one on you: Will you come with the *Sentinel*?"

"Can't, and won't," answered Leigh. "And you know it."

"As I expected. Then, will you do some work for us?"

"That depends," said Leigh. "If it doesn't interfere with the *Record* in any way I'm open to persuasion."

"Well," said the city editor slowly, "I want you to buck that Highburg combination, and buck it good. Ridgely, our chief, is mad over the way that Ross was compelled to quit Highburg, and has sworn that he'll bust the combine, no matter what it costs him in time or money."

Leigh whistled. "Ridgely has taken a pretty big contract on his hands, and you want to put it up to me? But who is Ross?"

"New man. Came on from Boston. His people, sort of sixth cousins of the chief. Is a graduate from some college course in journalism—a decent fellow, but a bit of a fool, who had somehow or other got it into his head that a reporter is a journalist. It was against my wishes that he was sent to Highburg."

"He stood it for two or three weeks. He and the paper were treated shamefully."

"From the little he let out to us he was

about as cleverly jollied and worried as a college-bred journalist, nose to nose with the real thing, can ever hope to be. Anyhow, he sailed over here about 1 A.M. one day, looking white about the gills, chucked his resignation on the desk, and walked out of the office. Ridgely is out for blood so far as the combination is concerned.

"Judging from a word or two that Ross dropped to me, I fancy that the Highburg gang gave him a fake tip on an alleged red-hot scandal; the villain of which was Ridgely himself. You know that our old man is a copper-bottomed moralist, and the idea of his name being mixed up with a yarn of the kind that Ross went out on has made him as mad as a stump-tailed mule in fly-time.

"So, Ridgely told me to hunt up the best man I know to take charge of Highburg and avenge Ross and *The Sentinel* by squashing the combine; or, at all events, making it feel sort of anxious and keep it hustling. Naturally, Billy, I plugged you for a game of this kind."

"Thanks," replied the other meekly. "In a game like this, though, the peg is likely to be put in a hole."

"A joke, by thunder! But the point's denied. You are to put the other fellows in a hole."

"Anyhow," went on Leigh, "I don't see how it can be done. Bevins has his own ideas about a man working for two papers at once, and I'm pretty sure he wouldn't cock the kind eye at a proposition of this sort. Besides that—"

"Besides what?" asked Staynes.

"Well, I stand pretty well with the Highburg lot and the boys generally, and—oh, hang it, Sam, you know how it is! This business isn't what it's cracked up to be, but we don't try to queer each other, unless we happen to hail from some blooming *Alma Mater*."

CHAPTER III.

Why Vincent Objected.

LEIGH was voicing one of the several charges that reporters of the older school are in the habit of making against the newercomers—that the loyalty, each to each, and the freemasonry that characterized journalism in years that were, is

fast vanishing before the influx of recruits from the "better classes."

What had at first been necessity became habit. And so the old-line reporter possessed a faithfulness to his kind that was as unflinching as it was unselfish. Self-sacrifice, if a brother reporter was concerned, was the general rule.

It seemed to Leigh that he was being asked by Staynes to violate one of the fundamental ethics of his profession.

Staynes understood.

"Look here, Billy," he said quietly, "I think you know me well enough to believe that I'd be the last one to hurt any man who deserved a show. But I don't feel any scruples about that Highburg crowd. When it comes down to cases, the combination is just a rum-soaked aggregation of poker-fiends who don't attempt to earn their salaries, but hang on, simply because they've got Highburg cinched.

"We're just asking for what we're willing to pay for, and that is the news of the district. We are being done out of this, as are all the rest of the newspapers, by a conspiracy of loafers. It isn't fair—it isn't right, Billy, and it's chaps of the Highburg kind that give the boys and the business their bad names in certain quarters. People don't understand that fellows like the combine men are the exceptions, and not the rule."

Leigh winced. Staynes had unintentionally made a bull's-eye. The reporter and a certain Miss Vincent had had an "understanding" for many months. Leigh would fain have had it blossom into an engagement proper, but when he sounded the elder Vincent—an estimable but peppery gentleman, possessed of an independence acquired through the medium of a painters' supply business—he was told that no daughter of the house of Vincent should ever receive papa's consent to unite herself with a member of "so demoralizing and dissolute a profession as journalism."

Mr. Vincent, in this connection, recited lurid tales of reporters' doings as given him by one of Leigh's rivals. Even the girl herself had asked Billy how he could remain in a calling that, as Mr. Appleby had assured her—Mr. Appleby was the rival—was the last resort for drunken and dangerous characters. And two days later the show-cases outside of Appleby's

store—he being a prosperous retailer of leather goods—were seized by the bureau of encumbrances.

"I have also had it pretty straight," went on Staynes, "that the combination has raised the limit of its continuous performance game—it's a dollar ante now—and nobody in the crowd seems to mind it. Money seems easy with them since that Mainway contract deal." He paused, and looked significantly at the other.

Leigh's lips tightened. "Do you believe this?" he asked.

"I certainly do. I have my intuition, Billy, as well as my information. But apart from that, there are joints running wide open in Highburg that would have to close up right away if they were properly written up, but there's never a cheep about them from the combine.

"Why? The logic of the thing is that there's more money in it for the boys to leave 'em alone than there is in going for 'em. Only last week we offered double-space rates to Higgins, of the *Messenger*, for a story on the Harrow Street Casino, and promptly got a hasty 'No' from him. How does it look to you?"

"It looks like dirty business," replied Leigh slowly and frowningly. "Sam, I'd hate to think this about these fellows. But—if you—if I—could make up my mind that it were so, I'd go for them until they smelled brimstone."

Leigh was displaying another trait of that complex creature, the newspaper reporter—his professional honor.

Remembering that Leigh was a sturdy example of journalistic fealty to one's employer and one's self, it is easy to understand how he was beginning to feel toward the combine, in view of Staynes's conclusions regarding it.

It may be that his jealousy for the good name of his vocation was none the less assertive by reason of the estimate Miss Vincent had placed upon it.

"Lastly, Billy," resumed Staynes, "we'll make any terms in reason with you. You propose 'em, and I think that I can safely commit myself to declaring that we'll accept 'em. But, if I were you, I'd tackle the job on space—"

"Space?" cried Leigh. "Why, Sam, if I should come with you—which I don't say that I shall—I won't get in a couple of columns a week after I've declared

myself. You know that they'll head me off everywhere and anywhere. News will be scarcer for me than chunks of radium."

"Precisely, and you'll then get your mad up and proceed to throw things into the combine and smite it, and amass shekels at such a rate that I'll have to cut your bills to keep you from busting the cashier."

The reporter flushed. "Quit your kidding, Sam," he said, "and I'll think this over. If I get my own and Bevins's consent to pitch in—which I'm not at all sure that I shall—when do you want me to start?"

"Soon as possible, if not sooner. And, Billy, I'm not trying to jolly you, believe me. If I hadn't believed that you were the right man for this proposition, I wouldn't have sent for you. I like you all right, but not to the extent of asking you to hold down a job that was aces too high for you."

"Ridgely thinks I'm all to the mustard in the matter of good judgment, and I'd hate to have him find out that he was wrong. That's why I've sent for you."

Leigh smiled the smile of a man who wishes it to be seen that he knows that he is being chaffed, but enjoys it.

"And," added Staynes, "I'll do the square thing by you. You shall have a weekly guarantee of an amount equal to the space that I'm positive the district will yield you at the end of three or four months."

The city editor knew that to get the best out of a man you must make him feel that you believe in him.

"That's very good of you, Sam," said Leigh, rising; "and I'm half tempted—no, I won't say that. You'll get a note from me to-morrow."

The interview ended, and Staynes telephoned to his chief's room that he had secured Leigh for the Highburg district.

Notwithstanding all this, Leigh was nourishing a pet project, the fulfilment of which would mean his breaking for all time his journalistic ties.

In a nebulous sort of way the germs of the project had been with him many moons, and for several reasons, including the little Vincent girl.

But the idea did not take definite shape, curiously enough, until the evening of his interview with Staynes. The shaping came

about in this fashion. After leaving the *Sentinel* offices, Leigh strolled over to the Press Club. There he met Herrick. Herrick was a veteran in the business, and telegraph editor of the *Morning Despatch*.

He and Leigh finished their last game of crib, and the latter rose to go.

"What's your hurry, Billy?" asked the older man.

"Want to grind out some of my Saturday stuff to-night," was the reply. "Going to the dinner of the old Highburgians to-morrow, and so shall be a day shy this week on my usual work."

Herrick grunted discontentedly. "Same old grind. Same old everlastingly turning out copy. Life for us just so many sheets of copy, day in and day out. Talk about machine existences! Billy, why don't you get out of the business before you're stuck in its mud as I am?"

"How, George?"

"I was standing on our steps to-day watching the procession on Newspaper Row," went on Herrick musingly, "and about two-thirds of that procession was made up of broken-down newspaper men trying to borrow quarters. The business had sucked the youth and vigor and brains out of 'em, and then—like the bloated old spider that it is—it had chucked their empty, useless carcasses out of its web so that fresh victims could take their places."

"Not so bad as that," cried Leigh, with a laugh. "Not quite so bad as that, surely!"

"But it is," returned Herrick. "I saw dozens of 'em—dozens. Men who, in the old days, were splendid fellows—star reporters, who earned just as much as they chose, and whose expense bills were always O.K.'d without a kick; high-rollers, good fellows; and now, Billy, that hopeless, gray-haired, shabby, unshaven line of ghosts of the men who were ought to be a warning to you—I'm too old to take it—to get out, and get out quickly."

"But," said Leigh gently, "don't you think that the men rather than the business are to blame, George?"

"Not entirely, let people say what they please," replied Herrick, with a sigh. "When you subject a man to an abnormal strain for twelve hours or so at a stretch he's likely to look for some sort of abnormal relief."

"You get your midday assignment, and

you sweat blood over it for three or four hours. Then you hustle back to the office and proceed to turn out a column or so of copy at a 1.49 gait, doing your work amid sounds and under conditions that would send the average citizen dippy. 'Tis a joyous life, Billy, and—cut it as quickly as you can."

Leigh didn't smile, but again asked: "How, George?"

"How? It's a curious thing, Billy," replied Herrick, "that we can always find out and look after and chase to a finish everybody's business but our own. Give us something to do that really doesn't concern us, but concerns somebody else, and we're happy and will serve it up to the queen's taste.

"But give one of the boys an assignment to look after his own interests, and see what a condemned hash he'll make of it. Yet, there's no class of men in the world that ought to do better for themselves than we, and none that do so badly by themselves by the same token."

"Admitted," said Leigh. "But, again, how?"

Herrick droned on: "We meet everybody and talk to everybody and, if we chose, could make friends of everybody. But, do we? No. Our cards admit us everywhere and anywhere, from the cell of the burglar to the sanctum of the President. But do we ever realize our opportunities?"

"Nope. Heaps of people—politicians, folks with schemes, men with ideas—would give their eye-teeth to have the open door that we own. But we just roll along, content, like the chumps that we are, to barter our best—our years, health, work, and chances—for that measly little slip of paper that the auditor shoves at us on pay-days."

Leigh, with a shrug of his shoulders, rose to go.

"Stop a minute, Billy," said the other, laying a detaining hand on the reporter's arm. "I know I haven't answered your question yet, but—but, when I get to thinking I get to prosing and—regretting. Now, listen, you're young, and have an education that hasn't got frills on it, but is all to the good as far as the essentials are concerned.

"You've what, in our police-court society persiflage, would be called a 'pleas-

ing personality.' You have a gift of gab and a way of making friends. You are a somewhat crude, but fairly close, student of human nature. You know a whole lot of people, and you are familiar with the machinery and procedure of the courts. You must have picked up more or less points about the law in a layman sort of way."

"Embarrassing things for a modest fellow to hear about himself," laughed Leigh. "But, admitting them for the sake of argument, what then?"

"The answer's obvious."

"Then I must be a dense one, for I can't grasp it."

"It's—cut the copy grind and go in for the law. Half of the things that I have named as possessed by you are those that full-fledged lawyers labor for years to acquire—a big acquaintance, access to influential people.

"You have these ready to hand.

"The boys would, as you know, boom you along from the start. The average young lawyer has to learn lots about people and piles of humans and all manner of conditions of life. And the qualities, Billy, that make a good reporter have much in common with those from which a successful lawyer is shapen."

As Herrick ceased speaking, Leigh felt vague promptings and desires to cut adrift from the reportorial life. Herrick seemed to have furnished the needed touch. Leigh began to wonder that he had never recognized his possibilities in the same distinct fashion and on the same lines that his companion had done. A rush of conviction came upon him.

"Old man," said he, holding out an impulsive hand, "I'll do it. I'll do it, I promise you. And thank you for this—this advice."

Herrick took the proffered hand and held it, looking at him searchingly. "I think you will, Leigh," he said at length. "And I think, too, that you'll do it properly at that. Good night."

CHAPTER IV.

Meeting the Enemy.

LEIGH sat up late, thinking, planning, and—dreaming. The acceptance of the *Sentinel's* offer would more than

double the amount of his present income, if the district panned out even moderately well.

With care—he was an orphan, with no one dependent upon him—he could save all these added earnings, which, allied to the sum that he already put by, would at the end of a year or so put him in possession of two or three thousand dollars.

Having this money in hand, he would chuck the *Sentinel*, and attend evening sessions of the Martport Law School, retaining his position on the *Record*, however, and doing his utmost in the meantime to increase and reenforce his friends, especially those who might be useful to him when he was admitted to the bar.

This last event he determined should take place in about four years. By that time he would be thirty. And while he was building up his practise he would have his nest-egg to rely on.

And Mildred—she being Miss Vincent—would surely wait for him. So, with this last blessed conviction strong upon him, likewise the resolve to speak to Mr. Bevins in the morning, Leigh went to bed.

The proprietor of the *Record* gave consent to Leigh more readily than the latter had anticipated.

"I think, Leigh," said Mr. Bevins, "that the *Record* won't suffer by this, and so—go ahead. And, my boy, I'm not going to sermonize, but I'd just like to remark that the great majority of young men, who are otherwise sincere in their hunt for success, overlook the fact that honesty—honesty of purpose, of intention and action—is just as tangible an asset as a certified check.

"Here's a case in point. I'm going to let you do the *Sentinel* work, because I know you're honest. The *Sentinel* job will net you more per week than you're getting here, so you tell me. There you are. I won't enlarge on the moral. Wish you all kinds of good luck, Leigh, but don't overdo it, you know. If you begin to feel the strain, drop the work like a hot potato."

Leigh telephoned to Staynes, and two nights later entered on his task of combination-breaking.

The meeting-place of the Highburg was a small room at the rear of the big "reading-room" of the Municipal Hotel. Once upon a time the reading-room was

the scene of nightly dances, when the hotel was known as "Brannigan's," and what were now the reporters' quarters then being the wine-room."

Even Highburg couldn't stand Brannigan's after a couple of years or so of its malodorous existence.

So the place changed hands, and, as the Municipal was later "backed" by Assemblyman and local boss, James P. Burke, it became the semiofficial rendezvous of the majority of those politicians of the borough who were affiliated with the party to which Burke gave allegiance.

It was a rather imposing-looking establishment, with mirrors, mahogany, and electric lights. There were three floors over the café, in the lower of which lived the manager of the hotel, while those above were allegedly rented for pool-rooms.

Access to the reporters' room could be obtained either from a private hall that ran parallel with the café, or through the reading-room. But, as the combine had a game of its own going—as Staynes had said—the doors opening into both reading-room and hall were usually locked.

Men brought news to the combination at the same time that they brought thirsts to the adjoining bar. The quarters themselves were as scantily furnished as such retreats usually are. Dust, litter, and furniture—creaky and disreputable—are somehow or other the invariable accompaniments of the sedentary phase of the reportorial life. There were seven tottering desks that, when in use, had to be coaxed into steadiness with slips of wood and chunks of paper; a dozen chairs of all shapes, sizes, and stages of decay; a fire-alarm, with clock register and gong; a telephone, and the inevitable files of tattered newspapers.

Leigh reached the place at about 6 P.M., and rapped on the door leading from the reading-room. Bronson, of the *Call*, replied by opening a peep-hole in the door and surveying the visitor through it. The "peep" was a survival of the Brannigan days, but was nevertheless found useful in more ways than one by the "combine," chiefly as an entrance and exit for glasses.

"Hallo, Leigh," said Bronson; then he added, with some touch of hesitancy: "Will you come in?"

The other accepted the invitation and plunged into a blue haze of tobacco smoke. Four of the reporters were hard at work at poker. Jimmie Allen, of the *Clarion*, with his legs comfortably elevated on a desk, was puffing furiously at his brier and reading snatches from a sporting paper, while Griggs, of the *Examiner*, his head resting on his desk, snored in staccato spasms.

Leigh, noting these things, experienced a flash of anger and disgust. The deliberate disregard of duty made manifest by the combine exasperated him.

"Well," said Leigh, after some small talk, "I'm coming among you boys, if you'll have me."

"Sure, Billy," cried Allen. "Glad to hear it. *Sentinel*, I suppose?"

"Yes," was the reply. "Side issues, though. I'm still with the *Record*."

"Space?" asked Ely, of the *Supervisor*.

Leigh nodded.

Ely smiled. "Then, I don't think this will be a paying proposition."

"Why?"

"Well, you're to work in with the combine, I suppose?" queried Ely, evading the reply direct.

"If I can."

Ely looked at him. Something in the other's tone was significant.

"Of course you can, Billy," said Allen heartily. "You're just as welcome here as if you'd been born into the 'push.'"

Allen was a huge, bluff, good-natured fellow, who was affiliated with the others simply because he hated to be on unfriendly terms with his fellows.

"Thanks," Jimmie," said Leigh. "I hope the others will second your resolution."

"Join us?" invited Bronson, as he riffled the cards preparatory to a fresh deal. "Yes, sit in," added Halstead, of the *Free Press*, pulling a chair over to the table.

"I'll have to pass this time, boys," replied Leigh, "as I'm going to take a walk round the district presently and make myself known to folks. However, I'll watch the game a bit."

Bronson laughed and glanced wofully at his scanty collection of chips. "It doesn't look as if I were prospering by my phony work, anyhow," he said. "I'm trying to get back a bit of last week's salary that Allen and Ely got their hooks on on Tuesday."

(To be continued.)

BOILING THE STEAM.

BEFORE entering into a discussion of the advantages resulting from the use of superheated steam, it is first necessary to define it.

Superheated steam is nothing more nor less than very hot steam. It is steam of a higher temperature than that which it attains in the boiler in coming to boiler pressure.

This higher temperature cannot be obtained by adding heat to the boiler when the steam is in contact with the water from which it is made; but the additional heat will merely serve to make more steam.

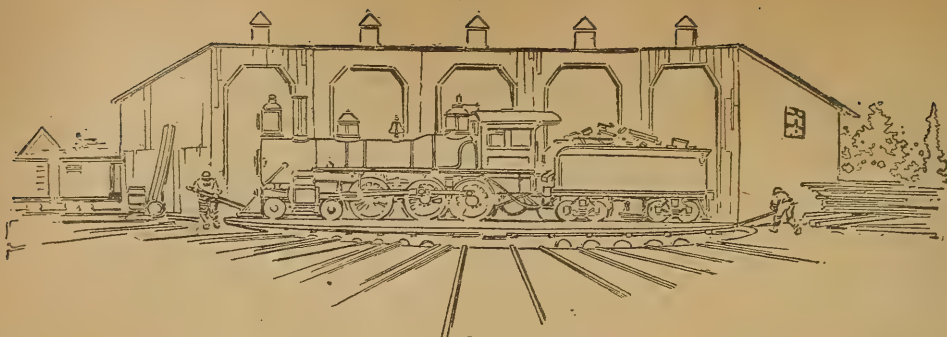
If, however, the steam is separated from the water and passed over very hot surfaces, it will receive additional heat and will then become superheated. This is what is done in a locomotive, the steam on its way to the cylinders being made to pass through the superheater apparatus in which the temperature is higher than that of the steam and in which it thus receives additional heat.

What advantage is there in using this very hot steam?

When steam enters a locomotive cylinder it becomes cooled by coming in contact with the cylinder walls, and it becomes further cooled by performing work in the cylinder. If the steam is of ordinary temperature a large amount of it is turned into water because of this cooling process.

As this water has no power and does no work, all the steam from which it is made is wasted. Furthermore, this water in the cylinders is dangerous, because, as we all know, if not released it causes broken cylinder-heads, pistons, bent piston rods, etc.

If superheated steam is used, all the heat that has been added to it may be given up before it is cooled down to the point of becoming water. By adding sufficient heat to the steam, therefore, all the loss of power which otherwise occurs can be prevented and a great saving in coal and water is thus effected.



Letters of an Old Railroad Man and His Son.

BY HERMAN DA COSTA.

No. 4.—A FIFTEEN-MILLION-DOLLAR PUZZLE.

Jim, Being in a Private Earthquake of His Own, Misplaces His Note-Book, but Finds that the G. M. Is Onto His Job.

JIM TO THE OLD MAN.

DEAR DAD: For the last month I've been attending banquets, and feasting like a lord. Sounds queer for a hard-working railroad stenographer, doesn't it? But Bigby's been ill again, and I had to take his place.

At this time the annual inspection of the road took place, and so I had to go along with T. F. again, on his private car. All the big bugs on the road were on board, and I got so that I could look the president in the face without wondering if he saw me. Vice-presidents were as common as blossoms in spring. Any one below that grade I hardly noticed.

Of course you know how popular T. F. is. From one end of the line to the other, whenever we stopped at a town the

mayor usually came out with speeches and a band, and at night everybody attended a big banquet. T. F. made me go along with him.

At the big cities there was usually a delegation from the Railway Club on hand, and at night more speeches and more banqueting. T. F. made me go to those also.

I have finally got so that I can tell what the little fork with the long handle at my place is for, and whether I should wait for the waiter to bring a new plate or eat out of the old one. The proudest moment of all, however, was when the superintendent of the Momongah division, while I was at one of the banquets, copied everything I did. I know he did, because several times I picked up the wrong things and watched him out of the corner of my eye.

There has been just one thing that's

bothered me at these banquets. At the opening they have a cocktail, for the second course they've some kind of wine; for the third they have something else to drink, and right down the line it goes that way. At the finish they top off with some more wine.

A Knotty Problem.

Now, I don't drink—not because I'm against it, but because I never thought about it. Everybody else drinks at these banquets, and I always feel a little silly about acting the goody-goody boy by passing up the drinks when they come along.

The first night I did it I saw T. F. grinning like an ape, and I got red all over. I knew at once what he thought. He thought I was trying to show off to him that I was an upright, virtuous young lady. So when the next banquet came along I tackled the cocktail.

I know now why it's called a cocktail. It tickled my throat so much that I had a fit of coughing. Then T. F. grinned more than ever. Fortunately the superintendent of the Momongah division wasn't there, or I'd have lost caste, but I was determined to show T. F. that he was mistaken, so I drank everything that came along.

Just as we got down to the cigars an earthquake shook the town. I started to jump up, but nobody seemed to notice it. I said something to my next door neighbor, but it wasn't what I intended to say. I don't know what it was just now; the words got mixed up on the way out. Luckily he wasn't listening to me.

A Private Earthquake.

I shut my mouth then, and held it closed, although I did long to open it and say something. Not anything in particular; just words. When the earthquake came the third time I knew right away what had happened. I guess you know, too, dad.

I sat still and closed my eyes, but there was a canary swinging on its perch inside my head, and it shook everything up so that I didn't know whether I was coming or going. Those fellows began talking just then.

I was supposed to report the speeches. That canary kept on swinging, however, and when I looked at my note-book next morning the only thing I could read was "Gentlemen." I threw it out of the window and told T. F. it had been mislaid.

When the next banquet came along I balked at the drinks. T. F. had been watching me, and I saw him grin again, so I got red again. But I stuck it out, and the next morning when T. F. asked me if I had again mislaid my book, I handed him the speeches written out.

Then he grinned again, and I got red again. One would think we were a couple of lovers from the way we kept that up.

I let two more feeds pass up without drinking, but you know, dad, I have always had a weakness for cherries, so when the next cocktail came I had to have the cherry and the only way I could get it was by drinking the cocktail. Whereupon the same performance was repeated by T. F. and myself.

When Asked to Drink.

The floor didn't rock that night, though, although I did have a little headache—no doubt the result of an earthquake in some other town. But I finished my notes early in the morning, laid them on T. F.'s desk, and scooted out of the car before he could ask me about them.

Seriously though, dad, this business of drinking at a banquet is puzzling me. There are a lot of big men assembled together, and they always notice it if I don't drink. Then the majority of them try to get patronizing, and that makes me hot.

I can stand almost anything but a fellow who thinks you are a milksop, and treats you like it just because you don't drink the way he does. Then, when I do drink, there are some who think I am trying to be fresh. And I hate that almost as much as the other.

I don't want to be a spoil-sport, and I have enough common sense to know that too much drinking is going to hurt a man. I never formed any ideas on it before, because I never had thought of it.

I can't see how it'd hurt me to drink at a banquet, and yet I can understand that a good many people would think I



THERE ARE SOME WHO THINK I
AM TRYING TO BE FRESH.

was a sport if I did it. Drink doesn't hurt me at all; I don't care much for it, and I know I can stop it when I like.

I don't want to say that I'll never drink, for that would merely be stating that I was afraid I'd become a drunkard, which would be simply cowardice on my part. T. F. and all these others may drink, and yet they don't become drunkards, and they're widely respected.

Cheers and Pink Lemonade.

It's one on me, dad. I don't know exactly what I ought to do. Of course, I feel it's better for me not to drink, but at the same time I don't want to be known as a crank. I have simply got to be a mixer in this railroad business if I want to become anything at all. I know T. F. doesn't look at it the way many men do—think that because I take a drink I am a booze fighter.

I've enjoyed our trips immensely. Of course, T. F. has been the attraction everywhere we went, but there is something mighty fine in having a whole town

turn out with flags, and cannons, and speeches, and pink lemonade, and pretty girls, to welcome us as the only fine crowd who ever came down the pike.

I've lost about ten pounds since I came here, but I go to the Y. M. C. A. gymnasium regularly. We have a big swimming pool there, and almost every night when I'm not on the road, I go in for a little while. As soon as I get some pictures taken I'll mail you one.

Give Miss Pesnelle my regards, and tell her you bet I like pumpkin-pie. When I come home on my vacation next year, I'm going to bring a silk muffler for her, and a pipe for Uncle Hinckley.

I wrote mother yesterday; give her my love. And don't forget to write soon.

Affectionately, JIM.

THE OLD MAN TO JIM.

DEAR JIM: You must be getting to be a mighty important person when you travel around in private cars with the general manager. A good many men who have been with the road ten to fifteen years can't say that much. One or two fellows I know right now attach more importance to themselves because they go out on trips with the G. M. than because of the work they do. I don't reckon you will go that way, though.

When I read to your mother your description of a banquet you attended she held up her hands in surprise. It was the drink part that got her. You know she's a member of the W. C. T. U., and I could see your finish the minute I began reading it.

At last, however, she admitted that being as you were her son you wouldn't go to the bad. It's queer about these women; they lay down the law for other women's sons, fearin' that they will go to the dogs if they don't, while their own sons are always sproutin' wings right behind their shoulders, and wearin' a halo on every day of the week.

While we are on the drink question, I

want to tell you a little incident that happened 'way back in the eighties, about twenty years after I went with the road. Old John Barrett was president of the road then. He had pulled it out of one of the biggest holes it had ever been in, cleaned the rust off the engines, borrowed money enough to buy new rails, and had finally gotten it so that the dividends were coming in regularly.

A Road for Sale.

The old man was one of those aggressive, deep-eyed fellows, always livin' twenty years in the future. The P. F. R. was a big competitor of the B. and D., but the B. and D. had the right of way. The old man saw that New York was goin' to be the biggest traffic-producing place in the country, so he began to lay his lines to push the road through to New York. Then it stopped at Baltimore.

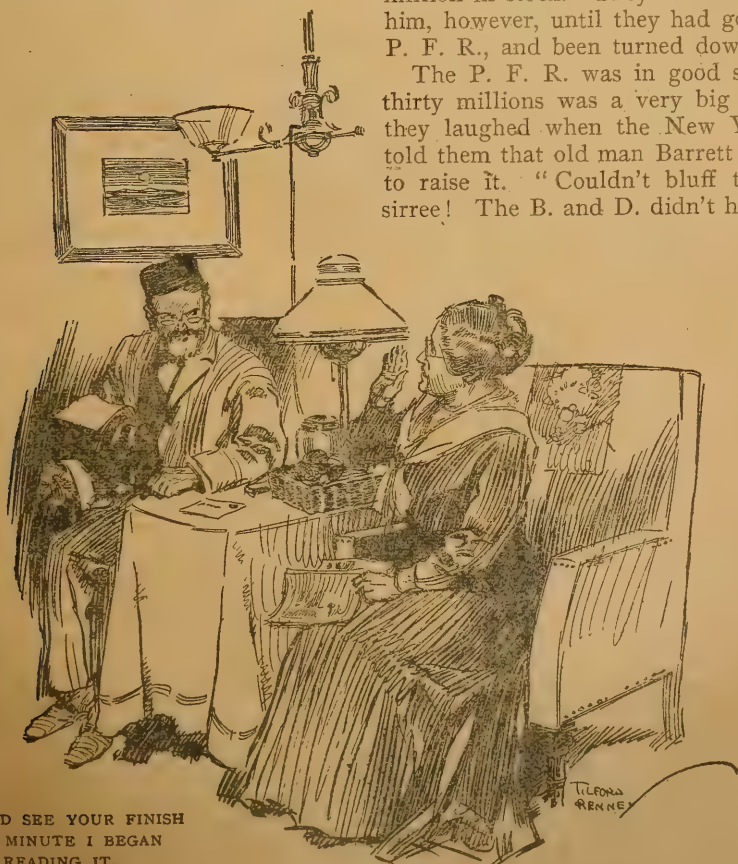
He had a son named Tom, and, like most fathers, he thought Tom was the finest young fellow that ever trod shoe leather. The old man went up to New York, and for about six months had confidential dickerings with the president of the little line that ran from New York to Trenton, New Jersey.

This little road was in pretty bad condition, and when the old man came up for a dicker they were quite willing to sell out to him—if he had the price.

It was a mighty big price for those days—somethin' like thirty million dollars, but the owners of it saw what old Barrett saw—that it would be a traffic-maker equal, in time, to all the traffic of the B. and D. The dickering was carried on so secretly that not a soul got any wind of it.

Finally the old man got matters fixed so that they agreed to let him have the road for fifteen million cash and fifteen million in stock. They didn't close with him, however, until they had gone to the P. F. R., and been turned down.

The P. F. R. was in good shape, but thirty millions was a very big sum, and they laughed when the New York road told them that old man Barrett was goin' to raise it. "Couldn't bluff them; no, sirree! The B. and D. didn't have thirty



I COULD SEE YOUR FINISH
THE MINUTE I BEGAN
READING IT.

millions to its name; what's more, they couldn't get it."

Tom's Big Task.

Old man Barrett sent for his son Tom one day. Tom was a fine-looking young man, and the old man's heart swelled with pride as he stood before his desk.

"Tom," said the old man. "I've got a little work on hand for you to do. Do

you get there, and he will give you all the papers in exchange for this. They are drawn up and waiting for you. Get your hat and grip, and start out right away.

A Fateful Stop.

It was the biggest job Tom had ever done in his life, and when he swung on board the train he felt as proud as Punch. He got into Philadelphia on time, and as he had about four hours to wait for the New York connection, he went up to the hotel to get a drink.

It was somethin' he had never told his father about. He drank like a fish at times. When he had put his glass down on the bar, in strolled one of the P. F. R.'s traffic men. He knew Tom pretty well, so they had another drink. Then Tom treated him, and about that time in came another P. F. R. man, from the operating department. He knew Tom also, so they took another round of drinks.

"What're you doing in Philadelphia, Tom?" asked the traffic man.

"No, you don't," said Tom. "You can't pump me. You'll be sick enough about it to-morrow, though."

"Maybe he's goin' to buy Philadelphia," suggested the operating man. "Looks like he'd like to buy the earth."

Tom grinned. "You're near it," he said. "But not near enough." He motioned to the bar-tender, and another round of drinks came out. The traffic man winked at the operating man over Tom's shoulder.

Pride of Possession.

They had been out with Tom before and knew his failings. Tom was searching in his pockets for change to pay for the drinks, when the operating man threw out a ten dollar bill on the bar.



THORP
RENNER

WHEN THEY SAW THE CHECK FOR FIFTEEN MILLIONS,
THEY GASPED.

you reckon you can start for New York this noon?"

"Yes, sir," says Tom.

"I want you to go up there," says the old man, "call on Jim Bland of the N. Y. and N. J., and hand him this check for fifteen millions and this certificate for stock in the B. and D. We have bought this road."

Tom's eyes opened and his jaw fell. "Gee whiz, dad! Bought his road? Where'd you get the money?"

The old man grinned. "Never mind where I got the money, son. I got it all right. That's a certified check. Jim Bland's directors will be in session when

"Don't worry about money, Tom," he said. "Borrow from me if you need it."

"Huh," says Tom. "I've got more money in that grip over there than you ever saw in all your life."

"Been robbing a bank, have you?" says the traffic man.

"Nope," answered Tom. "But we're goin' to rob a railroad. You'll find out by to-morrow all right, all right." He reached for another drink.

The traffic man knew about the N. Y. road being in the market, but he didn't think for a moment that the B. and D. was goin' to buy it. For curiosity's sake, however, and thinking that Tom might have some big traffic deal up his sleeve, he began to buy Tom drinks. Pretty soon the boy was just about able to walk by holding on to chairs.

"Where're you goin' to stay to-night, Tom?" asked the traffic man.

"Goin' to New York," says Tom.

"He's going to jump off the Brooklyn Bridge!" suggested the operating man.

"You fellows can talk all you want to," says Tom, "but to-morrow you're goin' to find that I've pretty nearly bought New York."

"Oh, stop your bluffing," spoke the operating man, pretending he was disgusted. "You haven't got money enough to buy a house there."

Cat Out of the Bag.

"I haven't, haven't I?" exclaimed Tom angrily. "I've fifteen million dollars right in that grip there?"

The two men looked at each other, then laughed.

"Come on, Tom," says the traffic man. "Have another drink, you don't know what you're talking about."

Tom was so full of whisky that he forgot all his father had told him. "So you don't believe I have fifteen millions, eh!" he stammered. "Well, I'll show you!"

He rushed over to his grip, and with some trouble managed to open it. By this time his two railroad friends were wildly

(To be continued.)

excited. When they saw the certified check for fifteen millions, with John Barrett's name scrawled across the bottom, they gasped. The traffic man, realizing what it meant, whispered to the operating man to make Tom dead drunk, and put him to bed, then got away on some excuse, and rushed to headquarters.

Inside of twenty minutes he had explained matters to the president of the P. F. R., and that gentleman sent out a hurry call for his directors. In another twenty minutes they had a quorum, and one hour after the meeting had taken place the P. F. R. had been formally directed to purchase the N. Y. and N. J. for twenty millions cash and ten millions in stock.

Euchred.

How they got the money nobody ever knew, but it was whispered in Philadelphia that if there had been a run on half a dozen banks there they would have failed. At eight o'clock that night the B. and D.'s option on the New York road expired, and at nine o'clock the directors of the New York road had sold their line to the P. F. R.

Tom Barrett was never heard from again. They found out that in the morning, when he heard the news, he mailed the check and stock back to his father, and took a ship to South America. Old John Barrett died of a broken heart, so the papers said.

This is actual history. To-day the B. and D. pays the P. F. R. four hundred thousand dollars a year to run over their line into New York, besides a percentage on all traffic hauled, and the P. F. R.'s last report, that I remember, showed it was making six millions a year over the New York division.

This is an extraordinary case, I admit, but I always thought that if drink was going to make an ass of a man he might as well quit it. And there are lots of men it does affect that way.

Be a good boy, and work like the deuce.

Your affectionate FATHER

It takes a long tunnel to pierce a high mountain, but there are always two ends. It's the same with trouble.—Reveries of a G. P. A.

AND "GOOBER" BROWNE SLEPT.

BY JAMES FRANCIS DWYER.

He Just Kept the Trombone Snore Turned On While the Texan Related This Thrilling Tale.



HE green conductor sat in the old car that had been converted into a lounge and lunch room at the Blue Point terminal. He listened to the stories of men wearing numerous bands of gold braid on their sleeves, who spoke regretfully of the old times and shook their heads over present-day methods and administration.

"Goober" Browne was telling of the big loads that he carried down to Coney in the old days, and "Goober's" imagination was juggling with figures in a way that would make a Wall Street tipster green with envy, when the new conductor shifted his position and jerked an interruption into the ancient's romance.

"I carried a load in a horse-car down in Texas once, and it put your big bunches into shadowland for keeps," he said dreamily.

"Goober" swung a glance of withering contempt on the interrupter.

"Horse-car?" he snorted. "Say! there's a guy of your breed running a pill-box on wheels made out of trouser buttons over at Hoboken."

The new man joined in the ripple of laughter, while the indignant "Goober" folded his arms, pulled his sunburnt cap down over his eyes, and gave other visible signs to show that he had no further interest in the past doings of the disputant.

"What part of Texas was that in?" questioned a freckle-faced motorman who was attempting to eat two crullers while figuring on his run-card. "I railroaded down there."

"Not on the circuit I mean," said the green conductor. "There were only two men on that road from the time it opened to the day it closed. I was one of 'em,

and"—he glanced for a moment at the rather plain face of the "mote"—"the other was nearly as handsome."

The motorman choked from the combined effects of cruller and indignation, but the man from Texas gave no heed to his mutterings.

He industriously corraled the fragments of his own biscuit, wiped his mouth with an expired transfer, and, leaning back, calmly surveyed the group. As Tobey Graham expressed it, "he didn't look a very green man," and the rail-roader who covers up his past with a veneer of verdancy is to be respected.

"How many did you carry, bo?" asked a gray-headed nickel-gatherer.

"Something between three and four hundred," answered the greeny; "but as there were no fares collected on the trip, I can't be sure of the exact figures. All I know is that I've got the old guy's records skewered down to the rear platform with the tombstone of little happenings piled on top of them."

A grunt of disgust came from the hunched-up figure of "Goober" Browne, but the man from Texas calmly turned up one end of the seat cushion, converted it into a rest for his head, and, without further invitation, started to tell his story.

"It was down in a little hole called Loopdog, and some of the citizens of the place thought a lot of things like friendly feeling, communal interests, and civilization would be boomed hurriedly by running a horse-car between that burg and a one-eared place called Cactus Camp, about four miles away.

"The Cactus Camp cluster wasn't the sort of place a tired hobo would want to connect with; but the 'Advance Texas' bug had got the Loopdoggers on the get-

busy quarter, and they advanced to meet Cactus with a horse-car on which I was the junk-snatcher.

"It wasn't a wealthy corporation, that Loopdog and Cactus Camp Transit Company, but they were sports. They had one car, six horses, and two employees, and they had more hopes than the Pennsylvania Railroad Company. I got the conductor's job because I was the only man in the place who wasn't too tired to walk after a nickel, and the driver took the steering occupation because his girl lived half-way between the two camps, and no other job in the Union could give him the privilege of seeing her eight times a day.

"Say, you in the last-century overcoat! Don't throw your crumbs on me!

"Cactus Camp was started by a saloon-keeper. He knew a little; and so that every one who visited the place would have a good thirst when they arrived, he put his beer ranch on the top of the highest hill he could find, and all the shacks grew up in its shelter.

"The hill was awkward for the L. and C. C. Transit Company. It wanted horses with hind legs two feet longer than the front ones to pull the truck up that mountain, and a team with opposite leg measurements to drag it down again.

"It made us take pity on the mules. On hot days when we had no passengers



"THE LION LOOKED AS IF HE WASN'T IN THE HUMOR TO RECEIVE VISITORS."

for Cactus, we'd wait at the bottom of the slope till we were sure that there was a return fare. If he was a husky guy, we'd entice him down the hill by telling him one of the mules had the measles; but if it was a lady, we'd perform the ascent. The driver, being in love, was the most chivalrous horse-steerer in Texas.

"We had been running the shay about six weeks when a circus wandered up the

a look at the show, and then drag the headquarters mob back to their roosts."

"Goober" Browne was snoring dismally, and when the Texan stopped for a moment to stare in his direction, "Goober" rushed the nasal music onto a top note that was so shrill it seemed to sting the silence like the crack of a whip.

"It was a pretty ordinary circ," continued the new man; "but the last stunt



"THOSE WHO MISSED

mountain to Cactus, and we had a busy day pulling sportive Loopdoggers over to have a look at the outfit.

"I remember that day well. It was blazing hot, and when we got over to Cactus, round about seven o'clock in the evening, we decided to stay there, have



on the program stirred the mob. A fellow was booked for an evening call on a lion, but the lion looked as if he wasn't in the humor to receive visitors.

"He had toothache or indigestion or something; and when the guy saw the way in which the animal was do-

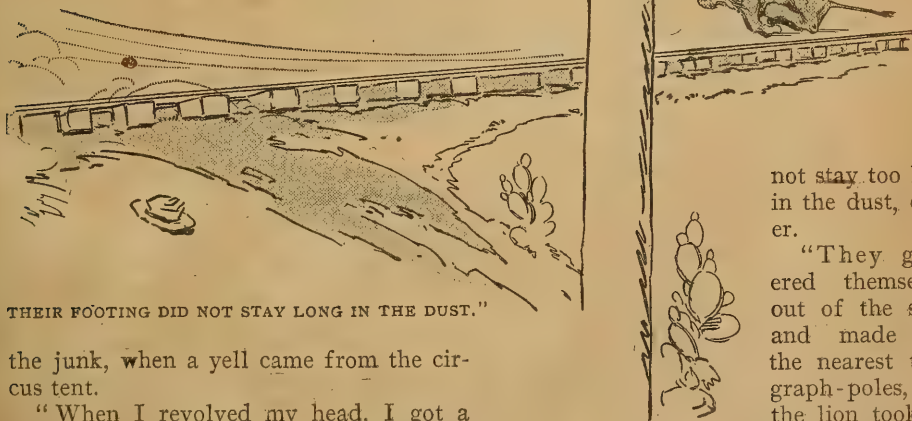
ing a carpet-beating act by banging his tail against his ribs, he thought it advisable to postpone the visit.

"That didn't suit the Loopdoggers and Cactus Campites. They cut loose all their cold-feet terms and sent them against the reputation of the lion-man, and things got merry. The mob reckoned the lion was a toothless arrangement who dated from the mastodon period. They told him that they had doubts about it being a lion, and the saloon-keeper offered to put up a hundred that his bulldog would worry it to the graveyard inside ten minutes. The circus boss was a Frenchman who couldn't swap compliments slung at him in plain Americanese, so he turned out the lights and let us find our way out in the dark.

"A big yellow moon was climbing up out of the sand when we got to the omnibus, and you could see the car rails stretching away to Loopdog like a pair of silver tongs. We started off with about thirty in the caboose, every one of them jabbering about the cowardice of the lion-tamer; and I was just wading in to collect

didn't provide against," continued the Texan. "The circus tent had been pitched a little way out of the burg, and all along the road in front of the car were Cactus Camp folk; and when they heard the first yell, and the repeat edition of it from the mob on the car, they took a big interest in safe places.

"The horse jigger came into demand, and if the circus boss was after acrobats he could have gathered in a few if he had been on the trail of the lion. They didn't wait for us to slow down. They took us on the "loop," and those who missed their footing did



THEIR FOOTING DID NOT STAY LONG IN THE DUST."

the junk, when a yell came from the circus tent.

"When I revolved my head, I got a fifteen-hundred-volt shock. 'Bout a hundred yards behind us, and streaking along on five-point speed, was the old toothachy lion that had nearly caused the riot. Hey, you with the snore trombone! Wake up! I'm going to tell about that record load."

"Goober" kicked viciously at the boot of a motorman that disturbed his rest, and, turning his head away from the storyteller, put more vim into his snoring.

"That lion started a boom in rapid transit that the L. and C. C. Company

movements. He was attracted by the rolling stock of the company, and the fellows shinning up the bean-poles were no use to him. He just streamed after the car, and that love-sick driver let the mules know that they were to beat Lou Dillon's record if they didn't wish to be the *pièce de résistance* for the lion's supper!

"When we got to the place where the down grade began to be pretty noticeable, we had close on four hundred aboard that

car. What? They were three tier deep on the roof, the inside was fuller than a coffee cup that's running over, and the human salvage that was hanging to the platforms and cursing because the fellows wouldn't give it room to roost on was turning the main parade of Cactus Camp into a dust-storm with its trailing foot-gear.

"Coney? Shucks! I know the Coney loads! Why, if I wanted the fares on that run, I couldn't have got one per cent. Only the guys on the rim of the jam could get at their pockets, and they wouldn't let go to put their hands into them for all the transit companies between Duluth and Galveston. No, sir!

"Coney? These ancient guys that gallop up and down one track for the whole period between cradle and coffin think their old route is the greatest passenger drawcard in the Union.

"The lion had been gaining up to the time we struck the slope, but when we got there he began to see he would have to do the Marathon of his life to make a connection. The fall was about one in five, and that car gobbled up the rails like the Twentieth Century.

Didn't we rub-a-dub-dub down that mountain? What? The mules didn't bother to gallop. They skated! The moment they felt that the car was traveling faster than they were they sat down on their hindquarters and slid. Fact! They took a rail apiece, and the weight of that car behind them never gave them a chance to slide off.

"Say, that lion was no quitter. The mob in the car changed their opinions about him going down that slope. When he saw us mopping up the iron he did a *honk-honk* in the double bass and took up the challenge. It was the weight of the crowd that kept that box on the rail. She bucked and rocked till half the mob were seasick. We went first on one wheel, and then on the other, but the mules kept in the lead. They knew the kind of insect that wanted to board us, and they took no chances.

"Four of the mob on the roof subscribed a hand apiece toward the job of keeping 'Nosey' Peters with the outfit while 'Nosey' unbuckled his Gatling gun on the pursuer, but whether it was because his nerves were out of gear, or because

the old box was bucking too much, the shots didn't seem to trouble the king of beasts.

"He thought it a come-on signal, and he responded with another *honk-honk* in the low bass to let us know he wasn't skying the sponge. All the time that load was squirming and cussin' and yelling fit to beat the band. They were standing on each other's toes and fingers and faces.

"If it hadn't been moonlight that lion could have trailed us anywhere by the noise that came out of the caboose.

"But didn't that car do the bucking bronco act! She capered and kicked and lurched and rolled till we were fair stupid from the tossing. Coney! Why, all this talk about the excitement of railroading in thickly populated places makes me tired. I've listened to a score of yarns to-day, and I'm feeling as gay as a guy that has toppled out of the Empire State when she's sprinting.

"Half-way down the hill I worked my way through the car to see what the driver thought of it. Besides, I didn't like to be the leading one in the deputation of welcome on the rear platform when the lion would come aboard."

"I told the driver he ought to write a message to his girl on one of the run-slips and paste it to the window, or some other part of the car, that the lion wouldn't be likely to eat, and he got mad.

"'Is he gaining?' he gasped, his face white as a sheet.

"'He'll lap us when we start to climb that little rise at the bottom,' I answered. 'He's got a burst of speed tucked away for the finish, and he'll give us the hustle act when the old box stops buck-jumping.'

"He stooped down and whispered in my ear, and that fellow's stock went up twenty points in my estimation.

"'Keep near me, an' be ready when I give the word,' he said; and you can bet a bunch of transfers to a brass button that I waited. They reckon a guy in love hasn't got much spare time for anything else, but that mule-steerer wasn't thinking of his girl at that moment.

"When we struck the level, at the bottom of the hill, every one saw that it was twenty to one on the lion. Those mules didn't have a hope of running away with

four hundred full-sized men aboard. The impetus that we got from the rush down the mountain sent us at a good bat along the level place and rushed us a little way up the slope, but then the mules had to tug in good earnest.

"The lion started to overhaul us, as if we were standing still. The mob on the rear platform was debating about throwing old 'Pinto' Nicholls over the dash, so that we could gain a little time while the lion was interviewing him, when Joe, the driver, kicked me in the shins, and we gave the whole gang a scare.

"Both of us went over the front dash together, straddled a mule apiece, and before the crowd knew what we were up to we had cut the traces, and they were running down hill to meet old woolly head, who was charging up the middle of the track.

"Say, you ought to have heard the yell that bunch set up when they found they were going to meet him.

"Did they scream? If that lion-tamer had been there he would have been pleased after the remarks they had made about his pet a few minutes previous.

"I was on for galloping right away, but Joe pulled me up, and there we waited, in the middle of the track, to see what would happen."

"And what did happen?" asked the freckle-faced motorman.

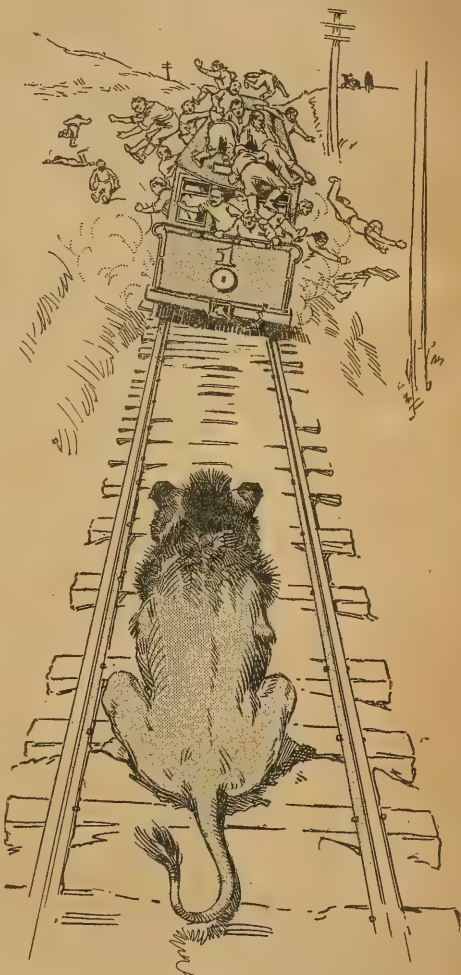
"Why, that little scheme of the driver's was only part of a big scheme that Providence was working out to rescue the bunch," answered the Texan. "When the lion saw the car coming back to him the old fool didn't have sense enough to get out of the way, but he sat in the middle of the track and made a grab at the leg of a drunken Loopdogger that was hanging over the rear dash.

"That was the lion's last grab. The fender of the car smacked him hard in the ribs, and he went backward. He tried to get on his feet, but the wheel got his neck between it and the rail; the weight of that four hundred soon did the rest.

"When Joe, the driver, saw how things had panned out he grabbed me by the arm and whispered into my ear. 'Stand by me,' he said, and then he galloped back to the truck. The crowd was swarming out of it like bees, and Joe started to pull the glory roll his way by telling them that he

planned the thing, because he knew the car would run backward, and because he knew the lion would stand in the middle of the track and get run over. That was Joe's story.

"But Joe didn't sum up that bunch of frightened guys. They pulled the two of



"AND WHAT DID HAPPEN?" ASKED THE FRECKLE-FACED MOTORMAN.

us off the mules and flung us into a mud-hole, and took good care we didn't get out till we were too tired to flounder any more. After that they took the car on to Loopdog, and we set out to walk to the nearest railway depot. We had sense enough to know that we wouldn't be welcome in either of those burgs after the incident.



"THEY PULLED THE TWO OF US OFF THE MULES AND FLUNG US INTO THE MUD HOLE."

"It busted the Loopdog and Cactus Camp Transit Company though. The circus owner sued the company for the loss of the lion, and he proved that the

shy of sleep. In fact, I've had but little for the past week."

He tucked the other cushion under him, and was soon fast asleep.

old caboose was running backward when it should have been running forward, told the jury that both the driver and the conductor were off the car, and he got a verdict for a thousand dollars."

"Goober" Browne stopped snoring and moved his arms. Then he stood up, surveyed the Texan with his sharp, little black eyes, and went up to hunt his mortman.

"It gets these old gazabos pretty mad when a youngster has something to tell," remarked the storyteller. "They think every car in the depot ought to be turned their way when they start to flute, and I get tired. Say, if any of you fellows are round here in an hour, wake me up, will you? I'm on the late run to-night, and I'm

MOVING A MOUNTAIN.

A TWO-MILLION-TON hill is being moved three miles in Cincinnati and dumped into an immense hollow which the Chicago, Cincinnati and Louisville Railroad is filling for a road-bed into Cincinnati from Chicago, says *Popular Mechanics*. To do this work quickly huge Panama canal diggers are at work eating out the hill and loading it onto pneumatic dumping trains of seven cars each.

As fast as one of these trains is loaded it hurries away to the dumping-grounds and an empty train of cars takes its place.

As soon as the freshly-dumped earth is left by the dumping trains, along comes a big spreader which saves the work of hundreds of laborers. It is pushed along by a locomotive and plows through the soft earth like a snow-plow and levels off the earth even with the tracks. When this is finished a temporary siding track is laid upon the newly finished embankment, and in this way the dumping cars keep moving close to the edge of the hill.

So far about a half million cubic yards of earth have been dumped into the bottoms.

Riding the Rail from Coast to Coast.

BY GILSON WILLETS,

Special Traveling Correspondent of "The Railroad Man's Magazine."

THESE stories, told by the boys of the Espee, form the concluding instalment of a series that has brought more than its expected quota of pleasure to the vast army of readers who look to THE RAILROAD MAN'S MAGAZINE for their literary divertisement. This is the thirteenth consecutive month of their appearance, and in all that time we have never had a dissenting voice as to their authenticity or interest.

In the final stage of his journey, Mr. Willets talked with the officers and employees of all the far-west divisions of the Espee, clean around the gigantic horseshoe that begins at Salt Lake and Ogden and swings westward to Portland and San Francisco, thence down the coast to Los Angeles, thence east to El Paso. A big territory to cover in order to get some stories, perhaps, but it was worth the trouble.

We will all say "Good-by" with a tinge of sorrow to "Riding the Rail from Coast to Coast," but—

Look out for the new series by Gilson Willets!

No. 13.—THE BOYS OF THE ESPEE.

A Cluster of First-Hand Yarns, Full of Excitement, Which Prove Why Some Men Are Heroes and Some Are Not.

BARRY, an Espee operator at Los Angeles, was playing his trick alone. He was mad clean through. Barry could not raise Beaumont, eighty miles east on the Pacific Division. This happened late one night in May, 1896.

Barry called up Ontario and Colton and other places west of Beaumont and asked each operator in turn whether business was doing with Beaumont. But each answer came back, "Nothing doing."

Had Beaumont been cut off by a quake of its own? Barry determined to find out, at any cost. Quakes were all the rage in California just then, although they had not become the vogue in the southern part of the Golden State.

"But maybe Beaumont's got hers right now," Barry said to himself, "and here's for getting news if I have to raise that place via New York."

He didn't have to go quite so far east, however, for he managed to get into communication with Beaumont via Chicago.

"A lunny man is wiping us slowly but surely off the map," was the substance of the last word received via some four thousand miles of wire from the station only eight miles away, "and we are cut off from all communication west."

Details were given. Barry rushed to

evening, eastward toward Beaumont. But then, no one *did* see him. And that's how he got the chance to begin proceedings by batting out each switch-light and each danger or safety-signal that he passed on his riotous way. One biff with the baseball bat and each such light or signal was smashed into smithereens.

This was the "lunny man." Hancock was his name. He was from San Francisco, and his mind had been rent asunder by his personal experiences after the quake at the Golden Gate.

Lunny is Revenged.

When he reached Beaumont, he batted out the last switch-light just by the roundhouse, and then looked about for other things to annihilate. There was the roundhouse standing before him like a monstrous, helpless enemy. Away with it! And Hancock forthwith set fire to it.

Flames rolled heavenward and ignited two loaded box cars and the adjacent telegraph-poles. Presently, these enemies of Hancock were in ashes.

The interior of the roundhouse was burned out; the box cars were left with only their metal parts, and the telegraph-wires in the vicinity were out of business. That's why Barry, the Espee operator at Los Angeles, could not raise Beaumont.

Into Beaumont, toward dawn, rolled a special train from Los Angeles, bearing a relief expedition and manacles for the wild-man, who was captured and taken back to Los Angeles.

"But what gets us," an Espee man said, when I came through there on the Golden State Limited, "is the way that Barry went up to Chicago and thence got in on us with a flank movement from the east via El Paso.

"I believe Barry would have persisted in his effort to get us, even though he had found it necessary to cable to London and thence around the globe and

BATting OUT EACH SWITCH-LIGHT AND EACH SAFETY-SIGNAL THAT HE PASSED ON HIS RIOTOUS WAY.



the despatcher and the despatcher went still higher up, and shortly a special train sped out of Los Angeles bound for the town that the lunny man was threatening with extinction.

What was happening down there at Beaumont?

In the first place, a gentleman with a baseball bat in his hand might have been seen walking the ties, early that

come at us by the back door. That lunny man cost E. H. Harriman a whole lot of money, but I guess he didn't *weep* no more than the lunatic did over the losses."

McDonald Guessed Right.

They told me the following at that same town, Beaumont. The tragedy occurred on the morning of December 12, 1908, only a few days before my own train was held up there because of an accident to a freight in the yards.

The Espee engineer who plays a part in this tale was Dave McDonald, who lived in Los Angeles and was beloved of all railroaders on his division because of his sociable ways.

A few days before the tragedy, Dave McDonald met Master Mechanic Kellogg and Boiler Foreman Reichert, and said:

"I see you have given me Number 2769. She's just out of the shops from repairs, ain't she? Well, I reckon you think you are favorin' me, but I want to remark, just the same, that I've noticed that when boiler bustin' time comes round, it's usually an engine fresh from a shop that gets the notoriety."

"Oh, nonsense!" answered Kellogg. "Boiler bustin' is a thing of the past, Dave—at least it is on the Espee."

"You're just superstitious, Dave," said Reichert, "and superstition is also a back number among Espee boys."

On the morning of December 12, Dave pulled into the yards at Beaumont on the 2769 and was ordered on a siding to let a train pass. His was a long, heavy freight, but the mastodonic 2769 didn't groan once under the weight. When the time came to go back on the main, Dave said to Conductor Guy Brockman:

"Guy, get up in the cab here with me—I want to talk with you some." Then to the head brakeman he said:

"Williams, you ride on the pilot till we get away from these yards."

Four men were now aboard the engine—the fourth being Fireman Roy Reynolds—when, without warning, there was a terrific explosion and the boiler went hurtling through the air. It alighted on an oil-car, then springing up again and falling on its head, turned over on its back and rolled a distance of 250 feet ahead of the engine.

Twenty-five feet from the engine lay the three men who had been in the cab, and the one who had been riding on the pilot. Conductor Brockman was dead; Fireman Reynolds was dead; Brakeman Williams was seriously injured, and Engineer McDonald was dying.

Jack Baile and other firemen and wipers from the roundhouse knelt over Dave, and heard him say:

"If only the *others* are all right, I go content, boys."

"Oh, I guess they are all right," said Dave's friends.

"Because you see, boys, it was I who insisted that Brockman ride in the cab and Williams on the pilot. Tell 'em good-by for me. And tell 'em I said—shoot any man dead—who says—boiler bustin' is out of date—and superstition is a back number."

Such was the end of Dave McDonald—beloved for his sociable ways.

Feeding the Hungry.

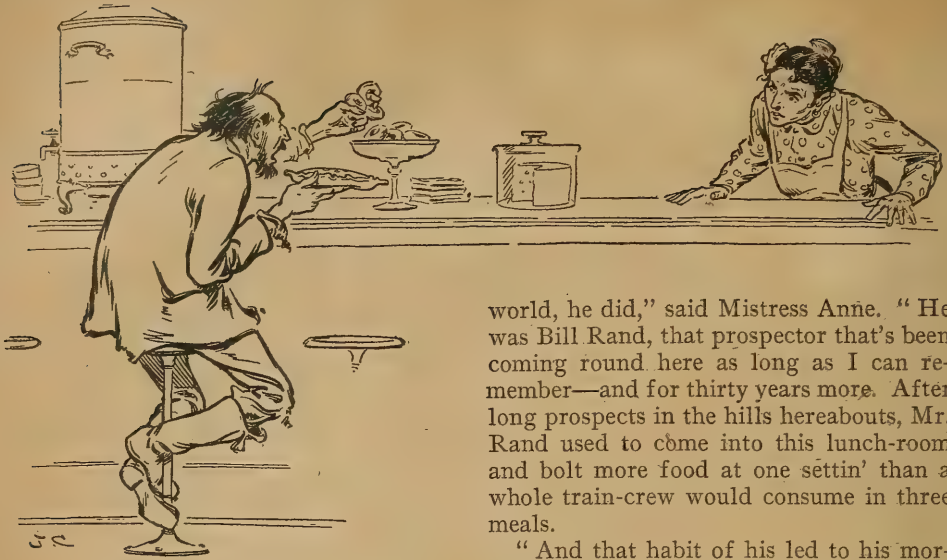
Now, let me tell of a truly remarkable stunt performed by the boys of the Espee commissary department at Los Angeles, in those terrible days immediately following the San Francisco disaster; and they did it in the name of humanity and without price.

Those Espee commissary boys down there knew that thousands of persons in San Francisco had to be fed. They planned to help feed those people, and then they went to the powers for permission to carry out their plan.

The whole Espee force at Los Angeles took off its bridle to the commissary boys, and within forty-eight hours from the time the germ idea got into the head of Baldwin, commissary chief, the biggest rolling-kitchen known to railroad history pulled out of Los Angeles bound for the Golden Gate.

"Ain't she the whole cheese and the whole bakery!" exulted Chief Baldwin, as his dream rolled northward.

That train consisted of thirty cars all turned into kitchens and bakeries. One hundred and twenty cooks and bakers were busy therein, making soups and stews and coffee and bread. From these thirty cars the commissary boys fed more than twenty-five thousand persons each day,



"HE JUST ATE HIMSELF TO DEATH."

which means that a total of some seventy-five thousand meals a day were served from that colossal mess-train.

And the Espee boy who was the front of the whole big stunt, Commissary Chief Baldwin, directed operations like a major-general, and set the pace for the boys to an end that meant shelter and raiment as well as food. When the order came from Mr. Harriman to pay off all the boys in San Francisco at once, so as to get half a million dollars into immediate circulation, Baldwin hurried to the head of the line to get his pay, in order that he might all the sooner hand over *half* of it to the relief committee.

Ate Himself to Death.

While telling of the Espee eating department, I must not forget those who are the most useful while being the most ornamental. These Espee boys are an institution in themselves, and many a good wife of an Espee boy has come from their ranks. For these boys are the lunch-counter *girls* at the stations.

The particular "counter girl" now in my mind is Mistress Anne Terry, the one with the pompadour of raven tresses in the "restauraw" at the Benson, Arizona, who told a tenderfoot about that man at Bisbee "feedin' himself to death."

"Yes, he ate himself into another

world, he did," said Mistress Anne. "He was Bill Rand, that prospector that's been coming round here as long as I can remember—and for thirty years more. After long prospects in the hills hereabouts, Mr. Rand used to come into this lunch-room and bolt more food at one settin' than a whole train-crew would consume in three meals.

"And that habit of his led to his mortal end. It wasn't ten days ago when he showed up at the lunch counter at the El Paso and Southwestern station at Bisbee, where a nice Mex girl friend of mine tends counter. She tells me that Rand had been lost for days in the hills, and that he staggered into Bisbee about all in and at starvation point.

"It seems that Rand didn't wait for my Mex girl friend to wait on him, but that he rushed up and seized a pie, some crullers, a sandwich, and a pot of beans. He bolted all of those things at once—and fell off the stool, dead. He just ate himself to death."

Getting a House Moved.

The Espee has its own uniformed special police. At midnight, November 23, 1908, a policeman started out on a case in plain clothes. As such, he is referred to as "secret service." But when he shows up in uniform, as he did on that November night at Redding, California, then he is spoken of as "a policeman."

The man I write about is Jim Horgan. His is on the Shasta Division, with two hundred and seventy miles of mountain track to police, going wherever he is most needed, but having his headquarters at Dunsmuir. The boss of the division is Superintendent Whelan, who issued the orders that obliged Jim Horgan to get into action at midnight.

Horgan was ordered to take a gang of

thirty section-men and proceed to Redding, the first important station south of Dunsmuir, and there move a house bodily from certain Espee property into the street—and get the whole job done before daylight.

Accordingly, at three in the morning, a gang of thirty huskies, under the leadership of Horgan, dropped from a train at Redding Station and made their way across the track to the Espee lot. They were armed with axes, crowbars, picks, and shovels; and Horgan was armed with a club, a badge, and a whole lot of authority.

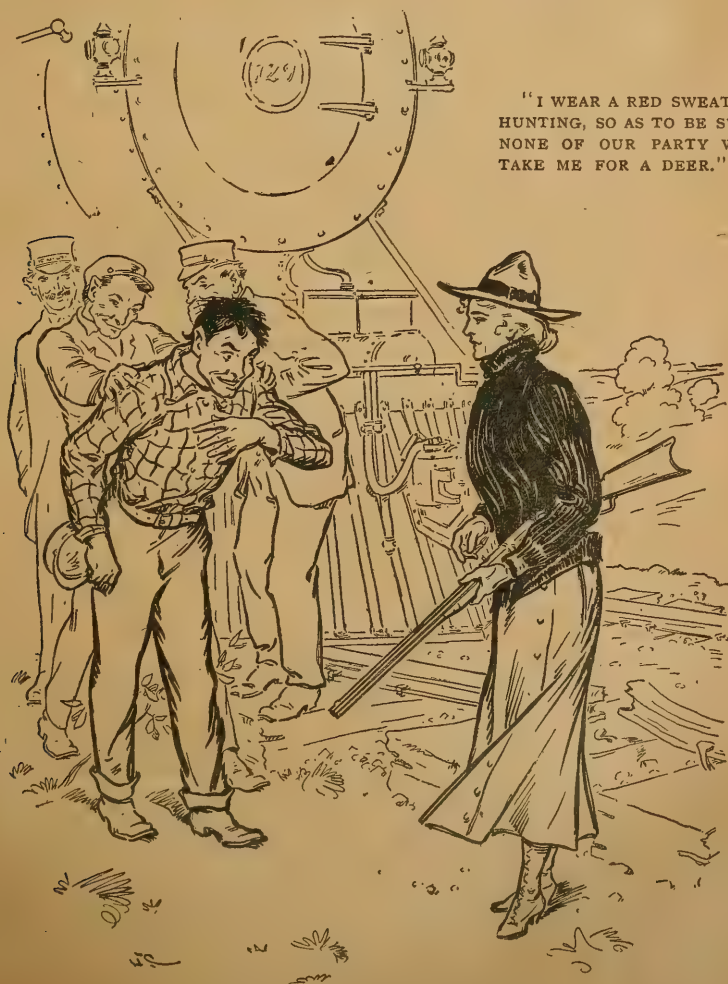
"Sh!" Horgan warned his men. "The boy, Tom Gillman, is asleep within. Don't wake him up. Move the house noiselessly!"

And with that the section-men took thirty whacks at that house, making a noise that would wake the dead. Shovels and picks cleared away the dirt from the foundation, axes cut away the supporting beams, and crowbars were the levers that got action into the dwelling at the rate of about a foot every half minute.

Meantime came wails from the interior. "What you doin' to this house? Let me out, I say." It was Tom Gillman, who had been placed on guard in the house by its owner.

Horgan Stands Pat.

By five o'clock the house stood in the street. "Now build a fence clean round



"I WEAR A RED SWEATER WHEN HUNTING, SO AS TO BE SURE THAT NONE OF OUR PARTY WILL MISTAKE ME FOR A DEER."

this lot," ordered Horgan. And the section-men put up a fence so quickly that by six o'clock Horgan opened the front door of the house, called out Tom Gillman, and said to him:

"Now, Tom, you go tell Frank Bucher what we've done. And tell him I say you are a good boy, not shirkin' your duty, but

and his police, when Street Superintendent Adams arrived.

"Take your house off my street," ordered Adams, addressing Mr. Bucher.

"I didn't put the house in the street," Bucher replied. "Tell this railroad man, this Horgan, who put the house where it is, to put it back where he found it."



"THE ARMS OF THE LAW LET FLY A FUSILLADE OF SHOTS IN HIS DIRECTION."

guarding property as well as you know how." Frank Bucher was the owner. The land in question was in litigation.

By this time half a dozen uniformed Espee policemen had come down from Dunsmuir, and these Horgan now stationed at intervals along the fence, giving orders at the same time that the place was to be thus policed till further notice.

At seven o'clock Mr. Bucher was on the spot warring good and hard with Horgan

But just then up came Fire Chief Poole. "I don't care whose house this is, or who put it where it is," he said. "It's within the fire limits and it's impedin' traffic, and it's got to go."

"Let it go!" cried Policeman Horgan gleefully. "I don't care where it goes, so long as it goes away from here. I reckon me and my men have given this town a white elephant, all right. But orders is orders, and Superintendent Whe-

lan can't say no grass grew under my feet."

Made of the Real Stuff.

One of the predecessors of Superintendent Whelan mentioned in the foregoing story was J. J. Lindberg, who for some years was division superintendent of that same Shasta Division. He was one of the best-known railroad men on the Pacific coast, and a personal friend of Julius Kruttschnitt, vice-president of the Espee.

Mr. Lindberg worked so hard, so fast, and so conscientiously at the task of making his division the best ever, that he put himself in a premature grave.

During the winter of 1906-1907 snow fell on the Shasta Division as it had not fallen for years. One storm after another piled the snow up on the right of way, and all hands worked day and night to keep the track open. In January, when things were at their worst on that mountain division, Superintendent Lindberg announced that he would go out on the line himself and direct the work.

For weeks Mr. Lindberg was seen along the line, giving directions and lending a hand wherever needed, thus encouraging the men by his own example of endurance and persistence. When he finished clearing one section, another would become blocked with still another heavy fall of snow. It was hopeless work.

When Vice-President Kruttschnitt went through there, Mr. Lindberg said to him:

"I never knew before that snow was like a flea. Just when I think I've got it lashed to the mast, it eludes me and falls on the track up ahead or down below."

"You better take a rest," said Mr. Kruttschnitt, "for you look all in."

"Not me," replied Mr. Lindberg. "I mean to keep this division clear of snow if I have to shovel it off myself."

The next day the snow-fighters found their division superintendent lying helpless on the battle-ground. He had fallen a prey to a paralytic stroke brought on from exposure. They took him to his home in Berkeley, California, and there, just before he died (January, 1908), he said to some of the officials of the Espee who called on him:

"Thank God, I was taken with my boots on! It isn't the approach of the

reaper that hurts. It's this confounded inactivity while waiting the summons that gets me. A railroad man is a soldier, and the one who perishes on the field of battle is to be envied."

"Smoke Up's" Gallantry.

The section that "Smoke Up" Moores bossed was some south of Bakersfield, California. One day in November, 1908, "Smoke Up" might have been seen running at breakneck speed down the track toward a train that was standing still. The train was standing at a place on his section where trains are supposed to keep moving, and he wanted to know why.

Before I proceed, let me state that "Smoke-Up" Moores is renowned along his section for gallantry, emphatic and persistent, where ladies are concerned.

When "Smoke Up" reached the head of the train, he confronted some half dozen young men and women unknown to him and a train-crew whom he knew as brothers.

Even the ladies he ignored in the first minute of his arrival, while sweeping the track with the trained eye of the born section-man.

"A broken rail, eh? And a rail twisted out of shape at that, eh? Well, however am I to congratulate you"—addressing the train-crew—"on this narrow and miraculous escape from sure death?"

"We've got yonder gent to thank," said the engineer. "I was poundin' along as usual, when of a sudden I beholds this gent standin' in the middle of the track wavin' that red sweater which you now see adornin' the person of the lady yonder."

"Yes, he's Roy Gilchrist," put in the train conductor. "He's a newspaper man of Bakersfield. He, with his party here, had been hunting. He spies this broken rail, and at once he fairly tears that red sweater from the lady's back and stops the train in the nick of time."

Roy Gilchrist here stepped forward and introduced all hands to the lady who wore the garment that had been the means of saving life and property.

"I'm very glad I happened to be wearing this sweater," said the fair lady sweetly, speaking in particular to "Smoke Up" Moores. "I wear a red sweater when

hunting, so as to make sure that none of our party will mistake me for a deer and shoot."

And now, here was the main chance for the gallant section-boss. "Mistake you, lady, for a deer? Why, miss, whether in red sweater or blue sweater or white sweater, I should at all times not make any mistake in taking you for a deer."

"Here! Here! Smoke up, old 'Smoke Up!'" cried the crew. "Light your pipe and forget it."

An Indian Did It.

There is Harrow, of the limited, east out-of Los Angeles, who in November of 1908 ran down and captured a desperate bandit—by proxy.

The limited, just east of Beaumont and near Banning, was running fifty miles an hour, and, considering the speed, it seemed impossible that a human being could jump from the train and live. Yet, while Harrow's train was racing along at nearly a mile a minute, two limbs of the law from Kansas and, I think, also Constable De Crevecoeur of San Berdoo, shouted to Conductor Harrow, saying:

"The prisoner has escaped — jumped from this flying rocket!"

Harrow promptly backed the train up some three-quarters of a mile to the scene of the escape.

The arms of the law jumped from the train while it was still in motion and espied their prisoner in the act of struggling to his feet. That bold train-jumper had been hurled eighty feet against a rock embankment. And now, as he started on a run, the arms of the law let fly a fusillade in his direction—but did not hit him.

Northward the fugitive fled, with the officers after him, and to Conductor Harrow, who was watching, it seemed a dead sure thing that he would make a clean getaway.

"I'll get him, though," announced Harrow. And he rushed through his train till he came to a half-breed Indian named Matthews, famous in that region as a runner. "Get after that runaway, Henry," said Harrow to the Indian, "and see that I don't have to hold this train longer than—"

But before Harrow could complete his sentence the Indian was on the trail.

He caught his man, too, and brought him back to the train.

"I've had to hold the train only forty-five minutes for the whole job," said Harrow. "It sure does take a train conductor to capture fleeting convicts. I'm going to suggest to headquarters that I be allowed to carry that Indian on all my trips, because criminals that are being taken from California back East are almost sure to make a break for liberty. That Indian would earn his keep ten times over by saving the road expensive train delays caused by officers that can't shoot or run."

Station-Agent Jeroloman, at Dunsmuir, arrived at his station early one morning in August, 1908, in time for the coming of the south-bound from Portland. The train pulled out, leaving a young woman weeping and in dire distress.

An Inexpensive Honeymoon.

"I've lost my hand-bag," she wailed, "and my jewels—and our money—and my husband."

"Your husband!" ejaculated Jeroloman.

"Yes, sir. He jumped out of the car-window after my hand-bag. It contained my diamonds and our cash."

"Where was that jump?"

"On what you call your Siskiyou grade."

"That means train was going up—and slowly. I reckon your husband, lady, weren't hurt much."

An hour later, sure enough, the husband arrived at Dunsmuir, footsore and weary, after walking the ties for miles.

"I found everything all right," he announced, displaying a bag and a lot of jeweled baubles and a roll that looked like a bundle of Smyrna rugs.

"You see," he explained, "we're returning from our honeymoon, and my wife dropped this bag out of the window of the Pullman some time before daylight. And I dressed and jumped out of the window—and here I am."

"And do you mean to say," expostulated the agent, "that you are actually returning from a honeymoon with a roll like that? Well, you sure do deserve to lose it."

Roadmaster Samuels and a number of

section-hands were inspecting track on San Gorgonio Pass, one of the steepest grades on the Los Angeles-Tucson Division of the Espee, where trains rush down toward the desert at speed terrific. They came to a trestle. Samuels said:

"I smell smoke. Don't you, boys?"

On examination they found a pile of

"If we don't get this bridge, we'll get the second or third one."

"A threat!" exclaimed Samuels, and he sped away and notified the authorities.

The result was that some hours later Constable De Crevecouer came into San Berdoo with two youthful prisoners.

"These prisoners," he said, "are Char-



"HE JUMPED OUT OF THE CAR-WINDOW AFTER MY HAND-BAG."

lie Reatz and Abe Parker, who were thrown off the Sunset Express by a brakeman. Perhaps they thought to get square with the railroad men for serving them like that when they were attempting to beat their way. Perhaps they tried to burn that trestle, and perhaps they wrote that letter on the sands. But the Espee trains are safe from these fellows now." And he locked his prisoners in the calaboose.

brush under the trestle burning and threatening to set fire to the structure.

Roadmaster Samuels and his men were in the nick of time, and by their watchfulness the east-bound limited that morning was saved from terrible disaster.

"And what's this?" said Samuels, indicating some writing in the sand under the trestle. The writing stated:

Two days after the foregoing events, Brakeman Ratigan was performing his duties on a very long and heavy east-bound freight. As they rolled down the San Gorgonio Pass, Ratigan said to Sam Hayes, a fellow brakeman:

"They couldn't find enough evidence that those two kids tried to set fire to the trestle the other day, so they held them on the gauzy charge of vagrancy."



THE TRUNK WAS TIED UP WITH YARDS AND YARDS OF CORD.

"Well, so long as they hold them on any old charge," replied Hayes, "I reckon things will run smoother and more comfortable on this grade."

He had hardly spoken when the train struck an obstruction. Half the cars were jammed with terrific force, and nine oil-cars lay ditched. Ratigan, unhurt, saw his friend Hayes flung to instant death.

The shock affected Ratigan seriously, and when he got back to Los Angeles the next day he laid off.

"Seein' Hayes go like that has locoed me," said Ratigan. He was suffering from a high fever, and wasn't just sure of what he was doing or saying. That night he was wandering round the streets, acting in an erratic manner. He stepped into a drug-store and asked the proprietor to

telephone for a hack, saying that he couldn't walk another step.

That druggist had been held up by foot-pads only a few nights before, and he was suspicious of the stranger who acted so queerly. So the druggist promptly called a policeman and made him arrest Ratigan as a "suspected highwayman."

The patrolman took Ratigan to the police station, where a surgeon examined him. His temperature was 102, and his pulse 120.

"I ain't a highwayman no more'n you are," said Ratigan in a weak voice.

"That's dead right," said the police surgeon. "You're a sick man, you are. What's your trade?"

"My trade," said Ratigan, "is that of watchin' brakemen get killed, and then tryin' to figger up how it is that the police hereabouts hold kid train-wreckers on the mere charge of vagrancy,

while they hold innocent brakemen on the charge of being highwaymen."

To the police it was evident that Ratigan had reached the raving stage in his fever. "But say, honest, captain," Ratigan went on, "what beats me is how did those kids do the trick, they being in jail at the time as vagrants?"

Such was the tragedy growing out of the fact that a Sunset Express brakeman threw two young men off his train.

Jack Middaugh's Death.

When a fireman in the very act of shoveling coal into his fire-box is mortally hurt through a hazard that has nothing at all to do with the railroad, few will believe it. Such, in fact, was the ex-

perience of Fireman Jack Middaugh of the Espee's Nevada Division.

Middaugh's division was that one that begins at Reno, with the shops and yards hard by in Sparks. It is in Sparks that the boss of the division, Superintendent Manson, has his headquarters; and it is in Sparks that the "boys" are proud of their Southern Pacific Library Association, where they have a building that is equipped with bath-tubs as well as books and magazines.

On a December evening in 1908, at six o'clock, Fireman Middaugh and Engineer Christensen started from Reno, where they had been doing switching work all day, to take their switch-engine to the roundhouse at Sparks. On the way Middaugh said:

"Soon's we get there, Christensen, I'm going to get one of those bang-up baths for which we pay fifty cents a month."

Like a stone, Fireman Middaugh dropped to the floor of the cab. He was stooping over in front of his fire-box, when he collapsed.

He lay on the floor of the cab, bleeding. Christensen was terribly frightened. He put on all speed for Sparks. When he arrived there he was reminded that Reno, not Sparks, was the place for his wounded comrade, because the Nurses' Hospital was located in Reno.

So back to Reno Christensen hustled his engine, and poor Middaugh was carried off to the hospital.

Rubbing It In.

Until this time Engineer Christensen had spoken scarcely a word. But now he said:

"Whatever has happened to Middaugh, anyway? We didn't hit nothing. We weren't wrecked a little bit. There was no collision nor ditching nor derailling nor running off track from a broken rail nor boiler explosion nor nothing at all. So what I want to know is, why did Middaugh caye in and go to bleeding like he did?"

"He's shot," said one of the boys. "The bullet hit him in the shoulder and ranged down through his left lung. The wound is mortal."

"Shot!" cried Christensen. "Show

me the man that did the shooting, and I'll— As if we hadn't enough dangers as it is without adding to them."

"It weren't a man; it were a boy with a rifle. Careless handling. You were just passing State Park when the shot took Middaugh. Some boys were playing with firearms, and in the fortunes of war, Middaugh was struck down."

"Well, all I've got to opine is," said Christensen, "that, on top of all the other things we risk, this is certainly rubbing it in."

Shingle's Hypnotic Power.

Baggage-man Shingle, at Berkeley, California, is a firm believer in the power of hypnotism, or auto-suggestion, and nothing can shake his faith therein.

One day a young woman, a nurse, alighted at Shingle's station. Shingle took the lady's trunk-check and found her trunk for her. The trunk was tied up with yards and yards of cord.

"You've got enough cord on that trunk," said Shingle innocently enough, "to hang yourself with."

Only a few days after that a doctor from the Nurses' Training-School came down to the station, and said to Shingle:

"Did you hear that we've had a suicide at the training-school? One of the nurses hung herself with a trunk cord."

"Was she light complexioned?" asked Shingle excitedly, "with plenty of gold fillin' tucked away in her front teeth and a whole lot of molars showin' when she laughed?"

"Yes, that's the one. Her name was Ethel Buttimer."

"It was, was it? Well, doc, say, do you believe in this here hypnotism at long-distance range, this here auto-suggestion?"

"Yes! Why?"

"Oh, nothing at all—except to say, doc, that this here auto-suggestion business is downright dangerous. I never thought an ordinary baggage-smash could have that much influence with a female. Well, if that don't beat all."

And he told the doctor of the remark he made to the young nurse about her trunk cord—and Shingle has been telling that story at least once a day ever since.

(The end.)

NUTLEY, THE STICKLER.

BY ROBERT FULKERSON HOFFMAN.

A Plausible But Defective Theory Fares Badly in the Final Proving.

HIS a stickler for points! "He will put in twenty-eight straight minutes saying nothing in particular and whetting the edge of his wrangle knife

on the bootleg of his bullheadedness—eh?

"Yes, he will, and then hop in and grab the last two minutes of a half-hour's friendly chat and skin them alive, while he splits an imaginary hair on an imaginary mole on the face of somebody else's opinion. But, I like him.

"Oh, you don't have to laugh!" announced Startzel, in conclusion, as a stifled and uncertain sound came from the direction of the big leather couch in the far corner. "That was no joke that I shoved off onto your mental platform. That is information, properly sorted, tied and routed."

He shook himself out of the depths and tatters of a once luxuriously upholstered lounging chair by the window and drew the shade against the city lights that were momentarily springing up more numerous in the early darkness. He closed and set aside the dummy distributing case, into the diminutive pigeon-holes of which, during most of the afternoon he had silently and patiently thrown, one by one, the name cards of a new and complicated route.

In this first hour of the evening he had been sitting almost under the frowning overhang of a grand and gloomy marble mantel that mutely told of the neighborhood's departed social greatness, while he, quite audibly, told his roommate what he thought of the merits of some recently designed safety appliances for mail-cars.

Finally, he had busied himself at

leisurely gathering from his possessions what was needed for use on his night-mail run and started toward the door.

"No, don't strain yourself, Wally," he counseled complacently, while ambling across the room.

"I know 'Dismal' Nutley and, if—"

Startzel broke off abruptly as he reached the door of the Kansas City boarding-house room which he shared with Wally, of the Persimmon Route's car department. He was, first of all, a methodical man and, having fixed upon an idea or practise, Startzel followed it almost automatically.

This simple fact was destined to tip the wavering balance between life and quick destruction for him, before the coming midnight hour should strike, but just now, he had merely discovered that his crumpled gray hat was on his head wrong end to.

He set his little, battered gripsack carefully on the floor while he made the desired reversal. Then, picking up the gripsack and standing with his free hand upon the door-knob, he completed his interrupted farewell:

"If you can get that great truth rightly into the midst of your understanding, Wally, it will save you having a whole bunch of jolts while you work this business out with Nutley.

"Nutley's a good inspector and I like him, in a way. But, he's a stickler for points, and he'll give you the fantods if you don't watch out. I had 'em when he first came on our route."

"You keep right on voting for the hand-rails, will you?

"G'by!"

Startzel may have "had 'em," as a result of his wearing experience with the

government's inspector in charge of safety devices, but he appeared none the worse for it as he swung his broad shoulders along under the street-lamps and, reaching the brow of the high bluff, stood looking down upon the wide cluster of gay-seeming, colored, railroad-yard lights far below him in the midst of the city's yellow night-glow.

There was in Startzel a certain fineness of sentiment that bade him always to allow himself this mute farewell of the city, before entering upon the perils of a night-mail run through Missouri—the same lovable quality of mind that appears, to the chance observer, only in little surface gleams in the swift-moving life of almost every man who has the mental and physical strength to survive in the railway mail service.

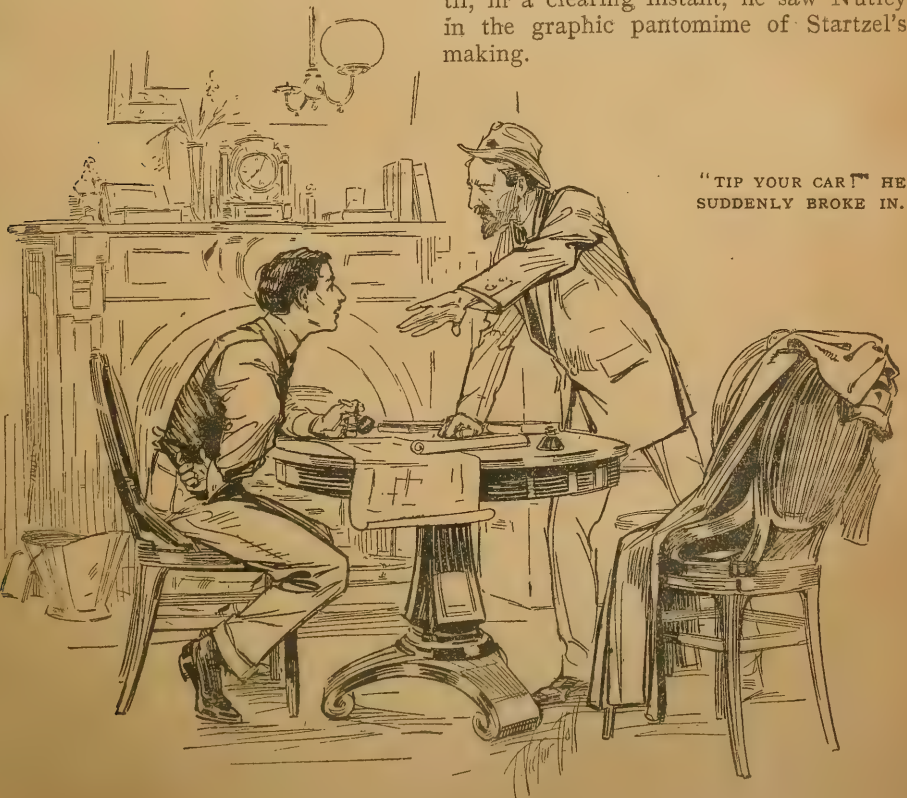
So, Startzel stood looking down into the night, dreaming his dream, whatever it may have been, only for a moment, before stepping aboard a passing street-car that was heading for the giddy descent to the yards.

In the following customary minute of hoping for the best and fearing the worst, he passed, with others aboard the car, safely down the foolhardy grade and, sweeping around within the wide curve of the covered station-shed, was presently swallowed up among the trim lines of outgoing passenger and mail trains, in the complex, orderly confusion of the Union Station.

Meanwhile, Wally, wise in the annals of car lore of the Persimmon Route, had yawned and turned with increasing comfort, upon the broad and ancient leather-covered couch, where Startzel had left him. He reached out lazily and aimlessly, once or twice, before he succeeded in fixing his burned-out pipe satisfactorily upon the chair at his side. He closed his eyes, determined upon a nap that should be free of all care and cars.

Just when he had reached the borderland wherein carking care rides prisoner in the distant roads to peace, Startzel's lurid sketch of 'Dismal' Nutley grew before Wally's drowsing mental eye until, in a clearing instant, he saw Nutley in the graphic pantomime of Startzel's making.

"TIP YOUR CAR!" HE
SUDDENLY BROKE IN.



That ended the nap but half begun. He snorted, laughed helplessly for a moment, and was wide-awake.

"Guess I'm feeling too well to sleep," he confided smilingly to his pipe as he sat up and refilled it. "We'll take another look at the drawings."

Shortly he was seated, with blue-prints spread upon the table under the light of one lonely gas-jet burning above the ghostly mantel. There came a rap at the door and he turned the prints face downward upon the table before bidding the caller enter.

"Oh! You, Nutley?" he said in surprise, as the door swung inward to admit the inspector. "Thought it was one of the boys along the hall. I should have opened for you. Have a seat?"

"No—no, I think not; thank you. Hardly have the time.

"I was intending to go down to the train with Startzel. I wanted some further expression from him on the new safety hangers. He has strong opinions and a good deal of insight.

"Has he gone?"

"He has," replied Wally, briefly covering both question and comment.

"You should have been here a few minutes earlier," he added, with difficulty preventing his smile of genuine welcome from degenerating into unrestrained laughter.

"Startzel goes to the train earlier on Monday night, because of heavier assortment at the start.

"Going on the run with him to-night? The car is all fitted up for trial, you know."

"Yes, I intended to, and must be going," replied Nutley.

"Plenty of time," said Wally, consulting his watch. "Sit down and have another look at the drawings, while you are here.

"There's a point or two—"

Nutley sat down, and, in a moment, Wally was deep in the discussion of the respective merits of hand-rails bracketed the full length of the car, at the base of the clearstory transoms, and of short, pendant iron rods, hung vertically, at intervals, from free swivel joints fastened in the top of the hood, so that men might leap from their working positions and hang to the hand-rails or the rods, free

of the floor and its encumbrances, when extreme need arose.

The plain question was this:

In the brief time that is given a mail clerk after he knows trouble is close at hand, which could he reach and grasp most surely—which most quickly—the long, fixed hand-rails above and to the sides, or the dangling rods which were free to follow any angle of the car's careening, and almost within his reach directly over the central aisle?

Each device had its claim to excellence, but only one could be had. Somebody had fixed upon a cost limit and somebody else had agreed.

—One must be chosen.

Wally was for the hand-rails, and he marshaled his arguments skilfully while Nutley listened—and "whetted the edge of his wrangle knife."

The swiveled rod was a pet idea of Nutley's adoption. It seemed to hold him with a sort of fascination like that which a clawing kitten finds in the pursuit of an apple hung upon a string.

"Tip your car! Tip your car!" he suddenly broke in upon Wally's discourse.

"Of what use are the fixed hand-rails when you tip your car in a wreck?"

"Where would a man's feet be?"

"Where would his head be?"

"How would he get over there in time, anyway?"

"But here! Look at the swiveled rods! Central over the car aisle! Always within reach, but never in the way!"

"Always pointing downward, no matter at what angle the car may be canted! Always reaching down a helping hand to the man below!"

"All he needs to do is reach up and leap for it. It is a godsend to the service, Wally, and I think you should cast your vote with your people for its use upon the Persimmon.

"As matters stand, their report to the government will weigh against mine. We should not show up in a deadlock of that kind.

"We will try this car out to-night, and further, it is true; but, lacking an actual proof, it will still remain a matter of opinion.

"If we could have a proof of the actual result in practise, I have no doubt what it would be."

Nutley had grown fervid, enthusiastic, even regretful, as he proceeded, not quite realizing at the moment what the desired proof might cost; that it could be had in nothing short of splintering and crushing wreck.

Before the fixed leaving-time he had arrived at the Union Station, inspected the safety hangers, and was seated out of the way in Startzel's mail-car.

Startzel had grasped the last sack of Monday's heavy mail, unlocked it, and was shaking out its gorge of mail upon the broad wooden tray before him. Instinctively and from long habit, he and the others within the car were listening, subconsciously, while they worked between trays and cases, to the sharp clang of hammers upon the wheels of the train.

The wheel-tonkers made their way slowly from the rear, testing and inspecting at either side, and the brief, bell-like clanging came close under the mail-car and passed on toward the front of it.

At the forward wheel, on Startzel's side, the hammer rang dully upon the flange. Startzel instantly straightened from his distributing and, with his hands filled with mail, stood listening intently.

The man below searched the flange with his torch and struck again, harder. The wheel rang a fuller note, not quite true and clear; but yet not the dead, flat note that would tell uncompromisingly of a bad fracture.

Once more the man searched and struck. Getting a fairly vibrant sound, he called to his mate, who stood listening on the opposite side of the car:

"What do you say to that, Joe?"

"Stopped on a clot of sand, maybe," came the answer. "Don't see anything, do you?"

"No."

"That's good. She's all right. Get a move on you! We'll remember her when she comes back on Wednesday."

They passed on toward the front, and a little later Hays, on the big engine of the mail, was whirling it out through the night, over the red clay banks and down among the swelling buttes looming big and spectral upon the fringe of the headlight's wavering bar of light.

Nutley, meanwhile, sat watching the furious battle with the deluge of mail that fell in upon Startzel and his mates at

every big station, and rained upon them in an intermittent stream from the mail cranes which gave up their shadowy burdens along the more open places.

He noted with some surprise the extent of the circles in which the rod swung irregularly while the car dipped and careened.

Instinctively his eyes went, in turn, to the stanch hand-rails stretching away along the lower edges of the clearstory.

While he sat thus debating the matter in his mind, Hays, on the engine, blew the long signals for the approach to the bridge over Big Babler River, and the train swung sharply into the long curve that ends just short of the bridge.

Down under the forward end of the car there came a sharp spang of metal, broken at high tension. The sound was lost in the roll and rumble of the flying train and in the light grinding of the brakes with which Hays was steadying her upon the curve.

The flange that had rung false in Kansas City, and then again and again had seemed to ring safely true, had broken free from the tread of the wheel; and for a hazardous moment or two it was swept along with the axle rolling and clashing beside the wheel. Then it caught, and was crushed and broken into irregular segments; and Nutley received his proof.

A hurtling, tumbling piece of the steel fell and hooked upon the rail in front of the rolling, rimless tread. The wheel leaped instantly, and the truck followed. There came a grinding and splintering crash from below, and then the scene that every mail clerk pictures only in his darker hours was enacted to the full.

At the first jolt and crash from the truck Startzel leaped upward, scattering his handfuls of mail wide upon the car floor. His alert, methodical mind had instantly connected and put a right value upon four things:

The dull stroke of the hammer at Kansas City, the whistle signal for Big Babler curve, the crash from below, and the hand-rails above him.

With instantaneous reasoning, he backed his belief with his life and chose the hand-rail. His fellow workers hesitated only for a glance, then followed Startzel's lead.

Not a word was spoken. Not a cry was uttered. They were veterans, facing

the death that they had been wordlessly trained to meet.

The splintered car floor gave upward before the thrust of broken car-sills that broke above the battering of the leaping truck. The truck, up-ended, reared and plunged in the midst of the flying débris.

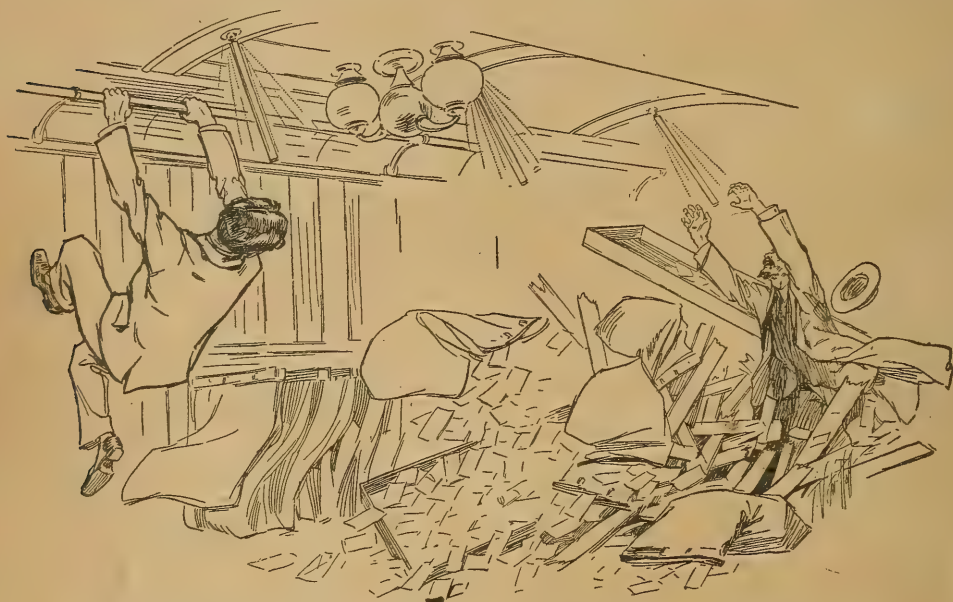
Heavy laden wooden trays, filled with loose mail, shot forward upon their slender iron racks, shearing and crushing all that stood between.

Towering piles of loaded mail-sacks fell crushingly over all, and many-holed

They found Nutley there when the ruck of it was being straightened out of the ditch. Very small and white he looked, pinned, spitted through and through between the interlocked and jagged ends of the broken car-sills, with his hands pinioned together, high above his head, and the safety-rod swaying and dangling mockingly to one side, just a little higher than his stiffened finger-tips.

Poor Nutley! It was the proof!

"That was a terrible proof," said Wally sadly, when Startzel was again sit-



STARTZEL SAW NUTLEY RISE AND SPRING, WILDLY CLUTCHING AT THE SWAYING ROD.

cases were torn from their wall fastenings and hurled their contents upon the ruin.

All this in the draft of a breath; and when the commotion had made itself felt in the engine and the brakes bore down harder upon the wheels, the vagrant truck was making its final, writhing, upward turn under the plowing and leaning car.

The gaslights burned steadily on through it all; and Startzel, hanging by his hands from the hand-rail, with his feet drawn safely above the shearing and crushing mass below, saw Nutley rise and spring, wildly clutching, at the swaying rod above his head—saw it swing abruptly beyond his straining reach and saw him fall back into the massive wreck of things heaving and splintering below him.

ting in the frayed lounging chair by the window and Wally was idling the evening hour upon the leather-covered couch in the far corner.

"Yes, poor Nutley!" said Startzel.

"I liked Nutley. He was a good inspector, even if he was a st—"

It caught in Startzel's throat—just there—and he finished by drawing the shade against the city lights, which were again showing numerous in the darkness, and by lighting the lone gas-jet above the once grand marble mantel.

"Yes," said Wally very gravely, "poor Nutley!"

Then he reached aimlessly once or twice before he recovered his neglected pipe from the chair that stood close beside him.



Told in the Smoker.

THE American drummer! What would the smoker be without him? His cheery face, his glad hand, his never-ending string of stories—they are as much a part of our great railway systems as the rolling-stock. He travels over miles of country spreading the latest wares of commerce; the Pullman is his home; his friends are legion, and live in every city, town, and hamlet.

Here is a bunch of the latest drummer yarns that we have collected. If any drummer who reads them can send us in any that are as good we will gladly print them. We will publish "Told in the Smoker" from time to time—whenever we have a sufficient number of good stories. If the Knights of the Grip come to our aid it should appear regularly.

The Most Humorous of the Latest Yarns of that Cheerful Traveler and Indefatigable Produce Pusher—the American Drummer.



HIS round, merry face of J. L. Fisher pushed into the smoking-compartment as the train pulled out from Rochester, going east, and found what it was looking for—good company. The smoker was already crowded, and the round, sleek figure of J. L. F. seemed to be pushing all the other occupants against the walls; but, somehow, a seat was found for him. There is always a seat for him anywhere, for he has a story to tell.

By occupation, J. L. F. takes out a line of samples of what the Chicago milliners think will go best in the way of trimmed and untrimmed hats, and sells them up and down the land; but by preference, he seeks out his brothers of the grip and re-

gales them with the latest twist he has been able to see in something that just happened to him.

On this occasion he fell in with a good crowd, coming home off the road for the holidays and making the last jump into New York. Most of them had swung around the continent, hitting big towns, sleeping twenty-nine out of thirty nights on the move.

"Say, I got such a cold I can hardly talk," Fisher began, before he dropped his satchel; "but hear this from Buffalo. You know the way the street fakers get the gawks piling around them down by the Union Station. One of them had a bunch of longshoremen from the lake-front standing shivering in a zero zephyr last night, while he told them all about

Green's medicated cough-drops. He said it could wrestle a cold and get both shoulders to the mat in one throw, but his own voice was worse than mine is now. He was just whispering and tearing his throat all to pieces to reach the fringe of the crowd.

"It was his voice that got me. You know, I used to do a little of that myself, and I watched to see his game.

Cured His Own Throat.

"'Makes no difference if you're so hoarse you can't hear yourself whisper,' he croaked, like a man with a harelip trying to shout. 'Just slip one down easy, and it'll clear your throat in ten seconds. It's the greatest remedy ever discovered for the cause of suffering—'

"He couldn't get any farther, and began to cough as if he were going to lose a lung.

"'Say,' some one called out, 'why don't you try it yourself?'

"'Thanks, friend,' he croaked back; 'that's a good idea.'

"Then, as the crowd stopped gaping and shivering, he took one of the cough-drops, looked relieved, and began to talk in his natural voice.

"'Funny, but here I am selling these priceless cough-drops at a quarter a bottle, and I haven't got enough sense to try one myself.'

"They all bit. Anything goes on a crowd. But I'm not the fellow to laugh at them. I thought I had something smooth myself once, but it turned out raw. There is a joke in what I just said—you may catch it by and by. I went broke in Scranton, and got on the tail end of a wagon with a gross of Little Beauty safety razors.

"The streets were full of miners, and all you had to do was to show them something and they had their dollars ready before they knew if they wanted it.

"'Come on up!' I called out. 'I'll shave any man in the crowd, and I'll give a dollar to every one I cut!'

"They came up, trusting as calves, and before I got through with the first one they were packed around so thick that the driver didn't have to worry about his horse. So he came back and wanted to take a hand.

"He said he'd been in the army, and knew all about shaving. I tried to keep him off, but he'd put up the money for the razors, and was feeling toplofty.

"Before he broke in I had shaved ten slick and clean, and they were pushing in closer, yammering to give up a dollar per.

"I was figuring on what I could do with the hundred dollars I could almost see in my hand, but I wanted to wait until some fellow insisted on buying right away, and then it would be a regular stampede. But all the time there was a little miner down in front, trying to get me to shave a chin covered thick with steel wires.

"I knew the Little Beauty couldn't stand up against it, and every time he tried to catch my eye I was busy picking out fellows with easy whiskers.

"Finally, I had to move to the other end of the tailpiece to get away from him without attracting notice, and while I was giving a practical demonstration over there he got hold of my driver and financial backer, and first thing I knew they were at it.

"It was all off right then. His whiskers wouldn't cut, and couldn't be nicked off. They had to be pulled out by the roots, and my partner did that all right. Everywhere he went on that doormat he left blood.

"My demonstration wouldn't take at all. They were all watching that bleeding face. It was no use. I just jumped off the tailpiece and left the razors to the driver. They were his, anyway, and it was his fault.

"Wait till I get my drinking-cup. I want to wet my throat."

Measuring the Sheet.

"Here's one," said Bob Lahm, who specializes on suits and overcoats. "What is the matter with this one by the ice-water? You're getting particular, having your own drinking-cup."

"Thought I was in Kansas, or wherever it is where they have the law against drinking-cups. Take your own little cup when you go out there. None furnished anywhere, and no one will lend you his unless you're a pretty girl.

"All the wise boys have little folding-

cups handy. No use for them, as far as their own thirst is concerned, but whenever a pretty girl walks to the end of the car they strain their ears to hear her say, 'Oh, dear, I forgot my cup!' Then, up they jump, each with his little cup in hand, and trample on each other in the aisle to get there first. You know how it is in day-coaches—how the old travelers always go for the middle of the car, where the riding is easiest. Now you find them all over the trucks near the water-coolers.

"They've got another law somewheres that sheets must be nine feet long. Some of the trains that pass through the State had to have new sets of linen for the sleepers. The first night they outfitted the Kitty Flier out of St. Louis, the porter in my car was measuring to see if they hadn't forgot an inch or two. He was holding up a sheet by one end, with the other end trailing for a couple of feet, when all at once it began to rise until the lower hem was just touching the floor.

"I could see his fingers at the top, but I knew he was not standing on the seat. The sheet was between us, though, and I could not make out how he was able to reach so high.

"'Who's levitating you?' I asked.

"'Wha's dat?'

"'How can you reach so high?'

"'Ah's standin' on mah toes.'"

Fisher stopped to take the drink Lahm offered him, but he went right on as soon as he had gulped it down.

A Bath and a Brush.

"Too clean for me," he said. "I've been down in the Mississippi Valley for a month, and I'm not used to this bleached water. I like mine brunette. You know how dirty the water is down that way. The worst I've seen was in Nashville. They're proud of it there, you know. They say you need the grit in your crop, if you go so far as to drink it, but washing is where it shines you. Makes you clean without soap. Just rub the water on the skin and the sand takes off the dirt. They don't like to have you get funny about it in your remarks.

"While I was there, Sol Metzger, with a line of leather goods, came along and signed up for three-fifty a day, American

plan, bath thrown in. Sol went up-stairs to get all he could for his three-fifty.

"Pretty soon he telephoned down:

"'Dot's a nice mud-bat' I got here; but vill you send up some clean water, so I git a wash-off w'en I'm through?'

"George Youngerman is chief clerk there now, and he got the call.

"That isn't the way we do it here, Mr. Metzger," he replied. "Ring me up when you're dry, and I'll send a bell-boy up to brush you off."

"Nice people down South," commented Andy Crothers, "but too pious mostly for my business. I handle feathers exclusively, and some of the churches object to them. There are whole sections where I can't sell even a robbin's wing. About the only chance the women have to show off their clothes is at church, and every time a woman shows up with a feather in her hat the preacher begins to make remarks at her.

"There are a few towns, however, right in the middle of the religious section, where the women want the longest and fluffiest feathers I carry. If it were not for them I'd have to cut out the whole section.

"One day I was in a pretty lively town in Kentucky, where half the women go regularly to meeting with flowers in their hats, and the other half don't go at all and wear feathers. While I was talking to a customer, in came one of the flower kind, and a new clerk, not knowing the difference, began to show her some of the latest hats all fussed over the top with feathers.

"My customer saw the woman's sour look, so she called the girl over and said:

"'Show her something cheap and virtuous.'

In Stop-Over Towns.

"I showed my samples in a queer place in a little Iowa town," broke in Emil Holden, who handles textiles. "I arrived late in the afternoon, and the hotel was full of traveling men. There wasn't a bed or a sample room to be had, and the only place to show my line was in the street. But one of my customers came down to the depot, and I opened a trunk for him in the baggage-room.

"He asked for goods I had in another, and in five minutes I had my samples all

over the baggage-room. I slipped the baggageman a couple of dollars, and sent word up-town that I could only keep my trunks open an hour; so they all came down and made the fellows in the hotel wait. After I had finished, I packed up and ate supper in the next town."

"I can beat that," said George Harding, who goes on the road for half a dozen manufacturers of brass novelties. "I have a customer in a jerk-water town in Kentucky who isn't quite worth a stop-over, because there is only one train a day and there are more important towns on the road."

"On this last trip I wrote him to meet me at the station and ride on to the next town with me, but when we pulled in he wasn't there. I had five minutes, and I used it to sprint a block and a half to his store. He said he was loaded up; but I told him that was no answer, and he promised to be on hand two days later, on my return trip."

"Coming back, one of the Pullmans was empty. I tipped the porter a dollar, he brought in a few trays of my best stuff, and I arranged it on the seats of the whole car. My customer was there, made his selections, bought a bunch of stuff, and the whole deal was closed in five minutes."

No one could match that; but Mort Goodkind had a story of two Irish high-graders from Goldfield who went down to San Francisco in the same sleeper with him. They had a section between them; and when it came time to go to bed, the fellow who drew the upper merely slipped off his shoes and rolled in. The one in the lower seemed to be encountering difficulties. Finally the one up above called down:

"What's the matter, Mike? Don't you like your bunk? Every time I fall asleep, you give a bump and I wake up."

"It's this hammick. I have tried three times to git into it, and every time I fall out."

A Tough Hide.

"Who do you think is con in there?" asked Fisher, as he returned from the diner. "My old rubber, Jim Miles. You know I used to be in the physical culture business. He rubbed them down when I got through. He has only a thumb and

one finger on each hand, but he *can* rub with those. He lost all the others bracking; and I have often heard my customers grunt out between groans, 'Wish the wreck had taken the other fingers, too.' He was too much for them—all except the game old fellow who couldn't stand punishment enough."

"He was a withered specimen, so I took forty off him before I would begin. Then I made him stand straight and throw back his arms. It nearly killed him. I thought his backbone would break. But I made him go through the regular exercise, and he kept up as best he could. When I got through I turned him over to Jim, and whispered, 'Go easy.' But Jim smiled, and began to pound his tough old hide."

"'You need a good rub to wake you up,' Jim said, and the old fellow smiled feebly. Then Jim slapped him a few times, and, rolling him over on his back, grabbed at his solar plexus to ease up the stomach muscles. The old man grinned, and said he liked it. Jim couldn't pummel him more than he liked. Not *him*! He was a fiend for punishment."

"Finally Jim gave him a couple that made him wince, and he looked down to see if he wasn't bleeding. He turned the old fellow over, and then it seemed as if he was scraping the old man's backbone. All at once the old codger saw Jim's thumb and forefinger, and that's all he could see. The others he felt pulling his insides loose. He just fainted."

How Culley Got Even.

"So this is Albany," said Harry Culley, a clothing salesman, as they pulled into the station. "I'm even with this town now, but it took me four years. I came in worn out one afternoon, and fell into the first barber's chair I saw. I said I wanted a shave, and went right off to sleep. A long time afterward I woke up and learned I had had a shave, hair-cut, shampoo, singe, face massage, scalp massage, two or three kinds of rubs, and the check was two dollars and ten cents."

"I laid down a quarter and started in to clean out the place, but they were prepared for it, and had me arrested for disturbing the peace. The fine was twenty-five dollars, and I didn't have but ten

dollars. After sleeping in jail all night, I had to wire my house, and they never quit thinking about the time I got drunk in Albany. I remembered the face on that barber. I went back to Albany later to lick him, and with plenty of money to pay my fine, but he was gone.

"I was afraid I would never see him again; but I walked into a car down in Ohio last week, and there he was. I could see he did not recognize me, so I sat down and made out that I was glad to see him. I told him I was an old customer, and he became quite friendly. All the time I was thinking how I could pay him off.

"We got off two or three times together at stations, and at a long stop I induced him to walk away from the train. He was nervous and looking back, but I told him we had plenty of time until the train actually started. Then we both ran for it. I kept ahead and jumped on the last platform, turning on the lower step so he couldn't get a foothold. The train was going faster and faster, and he was getting red in the face, but I stood there. He looked up to see why I didn't get out of the way, and I was grinning.

"Do you remember the time you had me put in jail because you charged me two dollars and ten cents for a shave?"

"It came back to him in a flash, but he made a last effort to get aboard. It was almost too easy, but I did it. I put my foot on his chest and sent him sprawling.

"We're even!" I cried exultingly, and he heard me, even while his vest was scraping the cinders."

Saved by His Wife.

"I was going to have a scrap with a customer this trip. You make me think of it," said Alfred Ringgold, a clothing salesman. "Nothing but his pretty fool wife saved him."

"Maybe some of you remember Louis Stern, who was cutting prices on lower State Street, in Chicago, a few years ago. It was him. He thought he could do the same kind of business in a country town, and failed. What made me maddest was that it was a good town, and I had lost money there in the same way. They cut prices so low they spoiled their market, both of them. I told Stern to be careful,

but he was a smart Aleck, and he said he knew his own business.

"When I was in Omaha three weeks ago, the house wired me that he failed, and I went over to see what we could save. I found it in a bad way. The stock was all gone, and the money with it. I was hot, and I said what I thought.

"You know what I told you," I said. "But you're one of these fellows who can't learn. You knew Abe Harris failed for thirty cents on the dollar with that same kind of funny business, but of course you were so smart, and you had to see if you couldn't do worse."

His wife was standing right there.

"Oh, but we don't fail so bad as that," she said. "What was that you was saying, Louis—we will fail for only ten cents on the dollar?"

Down-East Arithmetic.

"That sounds like Down-East arithmetic," laughed Harry Culley. "Those old fellows down there know how to figure everything to their advantage. When I was a youngster, I traveled the coast towns for a grocery house, and made every lobster-pot village on the map. Most of them were ten to twenty miles off the railroad, and I had to hire a sort of buckboard they call a barge. Mostly, I went alone, but now and then I found some one to split the expense with me.

"There was one little town out on a point of land, and going down there once, I picked up with the captain of a little lobster-smack who'd been in the interior with his wife and kid.

"We all drove down together, and when we arrived my customer was out to meet us, and I could tell by his manner that the captain was a sort of local lion, and he wanted to do him the honors. We began to unpack our stuff from the wagon, and the captain discovered the handle of his umbrella had been broken.

"What — broken!" exclaimed my customer; and then, turning on the boy who drove us down, he began: 'Now, look here; you'll hev to pay fer that. You cain't drive the cap'n down here and smash his umbrelly without payin' fer it. How much'd this leetle shower-stick cost you, cap'n?'

"'Lesse,' said the captain; 'bought

that in Boston a year and a half ago, and I paid a dollar seventy-five cents for it.'

" 'Yes, and you paid seventy-five cents to have it recovered last winter,' chirped his wife.

" 'Y'see,' said my customer, 'that's two and a half you'll have to pay, my boy.'

" And I laughed so I almost lost him."

Afraid It Would Go Stale.

" Say what you like about the pie," sighed Mort Goodkind, "but I wished they learned how to make good Yankée pie at the lunch-counters along the West-ern roads.

" There's a town in Colorado where the same pie stood on the lower shelf while I made two trips. It looked so unwhole-some nobody could eat it. I wish I had seen the fellow they tell about in Nebraska who gave the lunch-counter a new start in life.

" He came through on a train that was stalled a few stations above Grand Island, and began looking around for entertainment. The only thing worth noticing was the lunch-counter, so he sized it up, and the further he went the more interesting it became to him. There was one pile of sandwiches he eyed so long that the girl behind the counter said:

" 'Well, ye goin' to give yer mouth a chanct after a while?'

" 'Gently now, little girl,' he replied. 'Mustn't speak up in the presence of your elders. I was just renewing the acquaintance of some of these old friends I saw when I passed through here with the grading crew of the Union Pacific.

" 'And I was considering something,' he went on, while the girl was thinking of a sharp answer. 'Gimme two or three cups of coffee right away, quick. Maybe I won't have time if you don't hurry.'

" Then he began to stow away everything in sight, starting on one end of the shelf and eating each thing as he came to it as fast as he could wash it down.

" The girl stood there, fascinated, hardly able to keep count, while he went

through sickly-pie, shriveled cake, curled-up sandwiches, pickles, boiled eggs, char-lotte-russe, one after the other.

" He kept the girl on the hotfoot after coffee. It got to be a pretty fierce contest between him and what was left on the counter, but he put it all away."

" 'Nine dollars and eighty cents,' the girl said when he finished.

" 'You needn't take so much satisfaction out of it,' he remarked as he paid. 'It was worth it to me. When I come along here in another thirty or forty years, there'll be something fresh on the counter!'"

When Maudie Spoke.

" I know a girl who would have had an answer for him, all right," said Fisher, getting back into the conversation. " Her name is Maudie, and she is down in the hard coal section of Pennsylvania. Something like a thousand times a year she throws a hot platter at a bunch of miners, and in fifteen minutes she has the table cleared and set for the next meal.

" No monkey business about the way those fellows eat, and she was used to their ways. But along came T. Arthur Chauncey. He used to be on the road with textiles before he got his bit from home, don't you know. He was one of these neat and careful fellows—always chewed his food well. He was held up in the town where Maudie worked, and had to eat there. Maudie served him.

" He took what was set down in front of him without saying anything, eating off the edges; but when she brought him a thick cup slopping over with coffee and milk, he said to her mildly:

" 'I say, don't you know, I like mine black, my fine girl, and hot, very hot, and have it made strong, quite strong.'

" Maudie listened to all this, and then she sung out to the colored cook through the hole in the wall:

" 'Oh, Percy, make a fresh pot, and make it hot, blamed hot, and strong, blamed strong, for a blamed particular gent!'"

A Pullman can't go without an engine any more than a day coach.
Motive power before glad rags.—Philosophy of a Tallow Pot.



Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 22. — The Trials and Tribulations of Captain Fish, Who Had that Suffering Air of Martyrdom and All Other Natural Heritages that Make the Ideal Claim-Agent.



CAPTAIN FISH, over on the H., B. and M., was designed by nature to be a claim-agent for a railroad. He goes about with a shrinking, suffering air of martyrdom. He talks with soft and apologetic voice. His meekness and sufferance and sadness and wo, all natural heritages, serve to put the claimant in the attitude of robbing the lowly and deserving, and keeps the settling figures down to the point which human sympathy indicates.

There are claim-agents who are bold and combative, who aim rigidly at the strictly legal aspect of affairs, and to whom a fellow feeling is unknown. They harvest lawsuits and ill will.

Not so with Captain Fish. Neither judge nor jury for him. He sees nothing but the good intent and poverty of his road, and the compassion of the people. On these human lines he settles everything.

When he draws his pay, it pains him to tears of commiseration that he has to take the money from the company.

So his life is sad, for he is compelled to allow a little here and a little there. Vouchers will always follow vouchers.

When the seasons are dry, and the locomotive-spark leaves its trail of desolation along the adjoining meadows and wood, the captain enters upon a period of adjustment.

Then he is in a state of mind that makes "The melancholy days are here" appear like the visit of a three-ring circus in a coon town.

All in all, the captain saves his road a great deal of money, keeps litigation down to near zero, and does it all with that dismal, woe-begone cast of countenance and that doleful voice—all bequeathed him by the Creator.

Far be it for me to indicate that these sepulchral qualities constitute the captain's entire repertoire. He has, in addition, the fine art of judging human nature accurately, and turning to advantage the qualities he finds in his fellow man.

Delay, conciliation, and compromise are the weapons used by the captain to meet the complaints that come to him.

I am indebted to the captain for the tales that follow.

One dismal day we fell to talking about the railroads and the "people."

The captain bewailed, with a sort of dyspeptic sorrow, the lack of honesty and

perspicacity in the common run of human kind.

"If," said he, "we kill a cow, it is always a pedigreed Holstein, and the most valuable animal on the farm. If we burn a meadow, the timothy runs three tons to the acre. No train ever killed an elm-peeler hog. When we deal out death and destruction, we invariably hit the finest and most highly prized things the earth produces."

"Don't the claimants ever volunteer the correct value information?" I asked innocently.

"I never had that experience but one time," replied the captain dryly. "Maybe you have been on your back with a fever? You have? Well, you will recall how your mind went whirling around with all kinds of crazy and exaggerated ideas and images, and most of them related to your business."

"When I was down with the typhoid, my distorted fancy was all the time adjusting claims. One day I thought we had killed a horse, and I went over to the owner. We walked down on the railroad together, and sat down on the grassy bank.

"Captain," said the owner, "that horse was the worst old crow-bait on the farm. He was twenty-seven years old this summer. He hasn't done a lick of work for three years, only to eat up my good corn and hay. But he's always been in the family, and we had sentimental reasons for not turning him out to die. I calculate you've saved me twenty dollars a year, and I will be glad to present the company with ten dollars as a mark of appreciation for what they have done for me. Oh, no! He didn't get onto the track through a defective fence. He got on at the public highway. Any one can see that—"

"My pulse let out a few extra kicks, and my fever went up a few notches. I have a hazy remembrance of the old doctor. 'He's taken a turn for the worse,' said he. 'You'd better notify his folks.'"

"It came pretty near putting the finishing touches to me. It takes a good constitution to get over a shock like that."

"A railroad is always on the defensive," continued the captain. "No matter which direction we take, or which way we turn, or what we propose, we are held

up, harassed, enjoined, and blackmailed. We are the legitimate prey of all the unscrupulous gorillas and rapacious free-booters that infest this fair land, and constitute, we will say," continued the captain reflectively, "about eighty or ninety per cent of the population."

"You and I, captain," said I, by way of cheer, "are trailing along in a hopeless minority."

"I am," retorted the captain. "That much is sure. I know I am."

The captain went solemnly into a nearby café, and, under the genial inspiration of a glass of cold water and a bowl of chopped elm shavings with blue milk, narrated some of the experiences of a man whose duty it is to investigate the petty claims that come from the people along his railway.

One day the captain found a letter on his desk, "respectfully referred." It was addressed to the president of the road, but, by the "respectfully referred" route, it reached the captain's desk in due time. It read:

Grafthurst, Ind, Aug 13.

DEAR SIR & HONORED

Your trane kilt 8 of my best hogs friday night I showd your Sec foreman where they got under the fence but he gif me no satisfaction I want pay for them hogs and darn quick.

CRIS BAILY.

It is a curious fact, and but little known outside, how large a proportion of the letters of complaint that come to a railroad office make summary demands and convey a threat or intimation, indicating the pugnacious attitude of the writer. The first crude thought of the unsophisticated mind is that a show of belligerency will frighten the officials into immediate settlement.

Many a letter has contained this ominous ultimatum: "I'll give you just five days to pay for that spotted calf."

It gratifies the writer, for his unbaked fancy sees the claim-agent making the double hump and taking the hurdles to keep within the limit.

But here are the cold facts: regardless of the time limit set by the claimant and the dire consequences to follow, spotted calves are never settled for in five days. The claim-agent doggedly faces the perils

of delay, and goes about the necessary investigation in the usual way. If a voucher comes to the claimant, it comes along with the same old circumlocution that all vouchers take.

So it is noted of the captain, when he read Cris Baily's closing sentence, "I want pay for them hogs, and darn quick," he neither batted an eye nor drew an extra breath.

In a general way, a claim-agent, after a number of years on a road, learns to know fairly well a majority of the farmers owning land adjoining the railroad.

In this instance, Cris Baily was an unknown quantity to the captain. He was a recent arrival, and only a small portion of his farm, containing a wood pasture, touched the right of way. This was the first matter that had come up between Baily and the railroad, and the captain thought it wise to reconnoiter about the neighborhood and learn what he could, and to inspect the fences before approaching Baily direct.

In common law, a man is held innocent until proven guilty. In railroad law, a claim is fraudulent until proven valid.

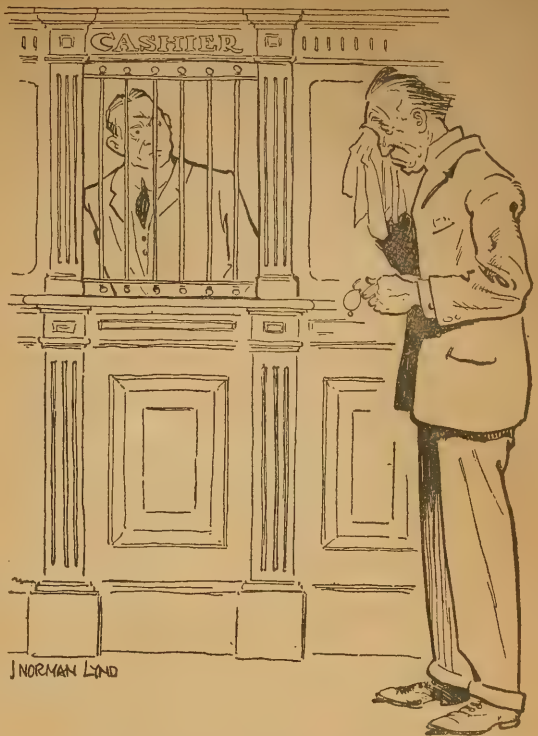
The captain visited the spot where the eight porkers came to their tragic end. He examined the fences, and found where they had crawled under and onto the right of way.

A railroad company builds and maintains all fences, and they must be hog-proof—even to barring out the little curly tailed piglets. Granger legislation has seen to all of that. Failing to have them so puts the liability on the company.

The captain convinced himself that, in this particular case, the company's defense was weak. But he wanted to know more. He wanted further information about hogs in general, and about the claimant in particular, and this he proceeded to get.

He drove out to the neighborhood where Baily lived, and, in an aimless sort of way, drove into the barn-yard of a neighboring farmer to water his horse.

"This has been a pretty good year for



IT PAINS HIM TO TEARS OF COMMISERATION THAT HE HAS TO TAKE THE MONEY FROM THE COMPANY.

farmers, hasn't it?" asked the captain in friendly conversational venture.

"Well, I don't know so much about that," responded the farmer. "Suppose we ortn't complain, but wheat ain't turning out anything extra. It didn't fill as well as I thought it would."

"Fine weather we're having," said the captain.

"Not as fine as it might be. Corn needs rain purty bad, right now. I reckon if it don't rain inside o' ten days, we won't have much more'n nubbins."

"S'pose you raise a good many cattle. And hogs. I see hogs quoted at eight dollars and thirty cents yesterday. That's about the fanciest price I ever knew hogs to be."

"Huh! The year after the war they was twelve dollars. They wus worth raisin' in them days. Ain't been nothing like it since for a farmer."

"Still, there ought to be good money in hogs at eight dollars," persisted the captain.

"They ort to be, but they ain't always,"

replied the farmer with a look of disgust on his face. "People think a farmer's always makin' so much money. They don't know what he's up agin all the time."

"Now take hogs for instant, that you

"About ten," replied the farmer.

"Your neighbor, Baily — has he lost any?"

"Cris had a bunch 'bout to die. I don't know just how many. He keeps his pigs in the wood pasture down on the



"PEOPLE THINK A FARMER'S ALWAYS MAKIN' SO MUCH MONEY."

wus just talking about. If a farmer feeds seventy-five-cent corn into a parcel of shoats until they get to weigh'n' two or three hundred, then in one week the cholera comes along and lays out the whole bunch, you wouldn't think that wus such a durned money-makin' scheme, would you? Heh? Even if they are eight dollars a hundred?"

"I didn't know there was any such thing as hog cholera any more," said the captain. "I thought medical science had done away with all those anthrax disorders."

"You must be a stranger in these parts. Why, sir, there hav'n', right here now, the worst siege of hog cholera I've ever know'd."

"Indeed! Is that so?" exclaimed the captain in surprise. "Have you lost any?"

railroad. A hired hand who was workin' for me happed down there, and told me he counted eight dead ons. The next day I heard eight of 'em had been killed on the railroad. That ain't quite as lingerin' as cholera, and it pays better to have 'em go that way. But ain't all of us got a railroad handy that we can drag the carcasses onto."

"Where is this hired hand?" asked the captain somewhat eagerly.

"Don't have any idea," replied the farmer. "He tramped in. Just stayed with me during harvest and slid out. Don't even know his name — only Joe. You'll never see him ag'in. He's just one of them floaters that don't stay long any place. He's a hundred miles from here by this time, and I don't even know what direction he took."

"Is Baily a pretty square sort of a

man?" asked the captain. "Does he bear a good reputation?"

"Well, I can't say much about that," replied the farmer. "He come here from Tennessee two years ago. It's been whispered around that he was moonshinin' down there, and was run out by government men. It's been said he run away with another man's wife and come up here. I don't know if all that's so or not, but I ain't surprised eny."

"Tell you the truth, stranger, I don't take no stock in him. As for them hogs bein' killed by a train—I got my own opinion—but what eny of us thinks wouldn't go in court."

"It looks more like rain to-day than it did yesterday. Wouldn't be surprised if we didn't have a plenty before the week's out. Won't you unhitch and eat a bite? Oh, well— Good day! Good day!"

The captain had the facts.

Cris Baily's hogs had died of cholera, and he had placed them on the track, expecting to collect from the railroad.

When it comes to fighting and rebutting an unjust claim, the captain was tireless and resourceful. In this case there seemed but one way open in the absence of proof. Confront Baily boldly, accuse him, and bluff him into acknowledgment and withdrawal.

But could a Tennessee ex-moonshiner be bluffed? If not, what next? Let him sue. Stand trial. Tell a jury of farmers our suspicions? Nix! thought the captain. Proof must be found.

The captain headed for Cris Baily's. Before him there was a turn of the road, and in the angle was an open piece of ground with a clump of trees.

Under their shading hospitality some gipsies had camped, with the usual assortment of broken-down horses, rickety wagons, dogs, swarthy sanyoras, and ragged children.

The captain stopped.

He was in sight of Cris Baily's house, and he could plainly see Baily out near the barn doing some work.



"YOU PUTA PIGS ON THE TRACK."

Two of the vagabond queens rushed out to the captain. One reached for his hand.

"Tell a fortune!" she cried importunately. "Tell a fortune—the past and the future—only ten a centa! Good luck! Good luck! All about!"

The captain instinctively drew back his hand.

"Hold on!" said the captain. "Not so fast, my tawny skinned sorceress. Most of us would give you something not to tell the past, and the future be hanged. But say, do you see that man up yonder near the barn?"

They nodded an affirmative.

"If you'll go up there and tell his fortune—handing him some of the past and laying it heavy on the future—I'll give you a dollar."

The swarthy mendicants jumped at the chance for sudden wealth.

The captain held a rehearsal. He juggled Cris Baily's past, went into his future, and made the fortune-tellers understand.

Cris Baily was grinding a scythe, unconscious of revelations, when suddenly confronted by the two dark-eyed, turbaned revealers of the hidden.

One of them grabbed his hand.

"Tella your fortune!" she cried. "Tena cent. I read it in a hand. The lines, they tell—"

"Clear out!" yelled Cris, getting his wind. "Off with you! Git!"

"You maka whisky one time," persisted the woman unblinkingly. "They hunta you long time—police—in a south—mountains—and a woods—you geta away!"

"Hold on! What are you giving me?" cried Cris.

"I reada your hand. The lines, they tell. I know alla the past. I tella the fute. Everything! I gotta the power!"

Cris held out his hand.

"Go on! Go on!" he cried eagerly. "Is there anything else? Here's a dime." She bent over the palm of his hand.

"You gotta away. You taka a wom-an—another woman. Nota your wife! No! No! An' you comea here!"

"That's enough!" cried Cris, standing up, stiff and pale. "I don't want any more."

The woman held on doggedly.

"The future it all here," the woman went on. "It looka dark. Penetentiaire! Prison! Prison! They senda you up! It looka dark. I see all! Everything! You puta pigs on the track. Railroad engine comea along. I know! I see! Soon they comea along, and get you for that. Soon! Ver' soon! They locka you up long, long time. I tell it you. Et all true! Some one knows, and railroad finda et all out. All ver' soon."

Cris jerked his hand away and started for the house. But he stopped, turned, and called after the witches.

When they returned to camp, they had from Cris Baily all the chickens, corn, and farm produce they could lug. The patient, waiting captain knew all this plunder was the sign and seal of secrecy, and he drove away in triumphant satisfaction.

In the course of a few days, by the "respectfully referred" route, another letter found its way to the captain's desk. It read:

Grafthurst, Ind, Aug 28—

PREST OF R. R.

I wrote you two weeks ago about my clame for ate 8 hogs which was killed on your track. I find I am to blame for them hogs gittin on the track as I made a bad place in the fence and I forgot to fix it up. I want to do what's fare and wright between man and man and I withdraw my clame—I remane

very truly, yours CRIS BAILY.

P. S.—There aint nothing for the railroad to pay. everything is now square—right is right.

The captain let out that jubilant chuckle of conquest known only to Pluto and the railroad claim-agent.

It pains the writer, after showing the cleverness of the captain in the above story, to be compelled to narrate another, wherein he emerges with less distinction. But railroad experiences must be given as they occur, and without regard to the merit, praise, or humiliation of the ones involved.

The poet who sings pæans of praise to womankind, extolling her beauty and gentleness, evidently never met Ann Hamerwalt, or he would have found the need of a discordant line in the chorus.

Architecturally, Ann is a sky-scraper without ornaments.

She owns a piece of land touching the railroad, and she rules over it like a pagan queen. She lives alone, and defies mankind in all the courts.

When a trespasser, or a luckless hunter, or a mendicant pedler, or any other of the itinerant gentry encroaches upon her preserves, Ann delivers a "Move on!" command that makes her easily the military figure of the district.

There is no open-hearted hospitality for the neighborhood at Ann's, and no

"Is this Mrs. Hamerwalt?" asked the captain with ingratiating suavity.

"Yes, sir!" came the tart reply.

"I am Captain Fish, the railroad claim-agent."

"Come in. Set down right there!"

It wasn't an invitation. It was a command; and the captain, like a true soldier, obeyed.

When the captain was seated, Ann arose to her full six feet of regal majesty—to her full queenly stature. She was



CONVINCED HIMSELF THAT IN THIS PARTICULAR CASE THE COMPANY'S
DEFENSE WAS WEAK.

"Welcome" motto hangs over the door for the wayfaring stranger.

One day a vagrant spark from a passing locomotive touched off some dry grass, and when the smoke had cleared away, a number of rods of rail fence running up toward Ann's house were destroyed.

The section foreman, with the instinct of a true fireman, arrived too late, and Ann turned on him with ribald abuse.

The section foreman said he would report it at once, and that the claim-agent would be along to settle the damage.

After a number of days, the captain appeared at Ann Hamerwalt's door.

somewhat bent and brown and unkempt, and not so regal or queenly that you would notice it.

Ann assumed the aggressive.

"You know that your engine set that fence afire, don't you?"

"From what evidence we have, we think—"

"There ain't any think about it. You know it!"

"Well, we haven't—"

"Yes, you have," snapped Ann. "You know it. You ain't a fool. You know you burned my fence. Maybe you think, just because I'm a woman, you'll fool me or bluff me."

Ann gave a whistle, and instantly a bulldog appeared, with his front feet on the door-step, and cast a red, suspicious eye on the captain. "Lay down, Bull!"

The dog occupied the doorway, and kept the captain under a cold, unblinking surveillance.

"It is this way, Mrs. Hamerwalt," said the captain, feigning an easy indifference. "We'll say that our engine set the fence afire, but we must know just how many rods, and how many rails, and how old the fence was, and what condition the material was—"

"You'll pay me just fifteen dollars," said Ann briskly.

"That seems somewhat excessive, I—"

"No use to argue about it. That's it. Fifteen dollars. I know what a fence's worth, and I know what you burned!"

"Very well," said the captain; "I will put it up to the company that way, and we'll see what they think of it."

"What they think!" shrieked Ann. "It's what I think! I think fifteen dollars! And that's all there is to it!"

"Oh, very well," replied the captain assuringly. "The company may think that is a reasonable figure. It will take a little time."

"It's fifteen dollars, and it's goin' to be paid, and it's goin' to be paid right now!"

"Right now!" exclaimed the astonished captain. "Why, madam, that's impossible. The matter must be referred and approved."

The captain arose as if to exit, but the dog with a projecting jaw let out an ominous signal that effectually flagged the captain, who at once resumed his seat and assumed a humble, conciliatory tone.

"We'll make it fifteen dollars, Mrs. Hamerwalt," he said. "We want to deal fairly with you. I'll see that you get your money. You see, Mrs. Hamerwalt, when a claim is paid, the papers must pass through a number of departments, and the treasurer of the road finally draws a voucher for the amount."

"That may be your way, but my way's different," retorted Ann. "You burned the fence. It's fifteen dollars, and you're goin' to pay—and before you leave this house. You've got the money, and you're goin' to fork it over, right here and now!"

Ann gave the table an emphatic thump.

"Why, really, Mrs. Hamerwalt," pro-

tested the captain, "this is extraordinary. This is a most unusual and high-handed proceeding, I must say, Mrs. Hamerwalt—"

"There ain't any use hav'n' any more words. You heard what I said. That's all there is to it!"

Now, the woman had a double-barreled shotgun in the corner and a brute of a bulldog in the door. A braver man than the captain would have reckoned twice or thrice before going against this combination.

The captain did not have the courage to make a break for liberty. The captain had always found this a world of sorrow and injustice, but he was taking no chances on any unexpected exit from it. So he went deep down in his pocket and extracted the last farthing, and, altogether, it totaled ten dollars and forty cents. Then he offered to add his watch, but Ann observed dryly that "Purty good-looking watches are sold for a dollar, and maybe that's one of them."

At length, when the captain with one keen jump cleared the barbed-wire fence from the domain of Ann Hamerwalt and lit on the right of way of the railroad, he was moneyless, watchless, and coatless.

Then the captain went up and borrowed five dollars of the station-agent, and got the section foreman to go over to Ann Hamerwalt's with it, and rescue the watch and coat.

It was one of the neatest and quickest settlements ever effected. The captain acknowledged that.

Some time ago, an old man who lost a cow on a certain road received a voucher for forty dollars and cashed it. On his way home he lost his pocketbook, and this misfortune moved him to write the following letter to the railroad:

DEAR SIR:

I am an old man and me and the old woman live alone. We haven't but a little of this world's goods. And we have a hard time getting along. We go to church regular. I am an old soldier. I was with Rosencrans at Corinth, and Murfreesboro, and Stone River. I always vote the Republican ticket. You are a great corporation and have got lots of money, because the country's what it is, and I helpt make it that way. What is forty dollars to you? You would never miss it. I lost that 40



A BRAVER MAN WOULD HAVE RECKONED TWICE OR THRICE BEFORE GOING AGAINST THIS COMBINATION.

dollars that you paid me for my cow. I thought if I explained it to you, and all about myself maybe you would pay it again. Think it over. With the greatest respect and well wishes, I am yours very truly,

URIAH H. SMALL.

This appeal has a touch of piety and patriotism, and being of a sentimental turn, it pains me to add that the railroad has not yet "come across" with the second forty.

Not yet—but soon!

VISIBLE TELEPHONING.

Device Which Will Show You Who You Are Talking To and Whether She Is Pretty.

SEEING by wire has long been the dream of most inventors, and not a few in the past have wasted both time and energy in attempting to solve the mystery.

It has, however, fallen to the lot of two Danes, brothers named Andersen, says *Rail-road Men*, to be the first to invent an apparatus by which can be seen what is going on at the other end of a telephone wire.

The details of the invention are naturally kept secret, but there appears to be no doubt as to its genuineness. An engineer of high repute has just tested the claims of the Andersens, and the expert declared the claim to be entirely justified.

The process is described as entirely new and very simple. It differs from the Korn and other systems of phototelegraphy, inasmuch as it makes no use of photography, but transmits light and colors directly. Any person speaking at a telephone fitted with the apparatus can be readily seen from the other end of the wire, and he likewise can show anything he desires to exhibit across the wires.

The Andersens have taken eight years to probe the mystery. They are of humble parentage—the sons of a saddler at Odense—and are aged twenty-eight and thirty, respectively.

WHEN THE DEVIL DRIVES.

BY ROBERT T. CREEL.

It Is Well to Remember That a Touch
of Nature Makes the Whole World Kin.



"GOIN' to make 'er out?" inquired the brakeman, holding his lantern close to Eldon's face.

"I don't know. What'll it cost for me an' the kid to git to Woodville?"

"I'll carry you for a dollar apiece. I got a car open. I can put you in."

"Too much. It's only fifty miles," objected Eldon.

"Can't help it. That's what I always charge. Anyhow, you'll make it easy after you git past Woodville. The fellers on the other division don't watch close," urged the brakeman.

"All right. Show us the car. Come on, Freddie."

The brakeman led the way to a box car half filled with coal. "Get in here, an' keep back out of sight."

Eldon climbed in after the lad, and the two crawled far back into a corner.

This kind of travel was a new experience for John Eldon. However, when one's boy has a cough that, the doctor says, will develop into consumption unless he is taken to a better climate; and when the mill in which a man labors is shut down, there is not much choice.

Although the roofs of the passenger-coaches offered a much swifter mode of travel, he had decided to make his way more slowly, by freight-train, on account of Freddie. He believed that, with the few dollars he had, he could pay the brakemen and have a little left at the journey's end.

From various bits of misinformation, he had formed the erroneous, if popular, idea that all trainmen are dishonest, collecting money from tramps whenever the

opportunity offers. Having fallen in with such a one, although they are as numerous as white crows, at the outset of his journey his original opinion was confirmed.

"Gee, I'm glad we're started!" whispered the boy as the car jerked forward.

"Heaven knows I wish it was over," muttered his father grimly.

Presently the lad huddled down on the coal and fell asleep. The man, after covering the small form with his coat, crept forward to the door, and gazed at the moonlit waste as it passed. In his slow way, John Eldon was worried. Since the death of his wife his whole interest centered on the child. Now, if not successful in making his way South, or, on arriving, if he could not secure proper care for the little fellow—he was likely to be left alone.

"Come out of that. What you doin' in there?" It was another brakeman who clambered in at the door. "You better drop off right here. We don't carry boes on this train."

"I paid one of you fellers to take me to Woodville," replied Eldon sullenly.

"Said he'd take you, did he? Well, he can't take you on this train, and the sooner you grasp that the better it'll be for you."

Knowing that the brakeman could enforce his command, Eldon aroused Freddie, whom the other now observed for the first time.

"Hold on, there! That boy can't walk anywhere this time of night. I guess you can stay on till we reach Woodville. We're nearly there now. That's as far as we go, so you want to be careful you don't get pinched."

"Much obliged," responded Eldon.

When he heard the whistle of the engine, he prepared to leave the train.

"Think you're good for the rest of the night on the rods, Freddie?"

"Yes. I think so."

"That's what we'll have to do if they won't let us go in the cars. But it'll not be many days till we're there. Then we'll get you cured of that cough." He spoke almost tenderly.

As the train slackened speed, Eldon watched for a favorable moment, and,

"This is luck," said the man, halting beside the water-tank. "Now, if we can find an open car, we'll be all right. You stay here while I look for one."

He left Freddie in the shadow and hur-



HARRISON BATHED THE GRIMY
LITTLE FACE UNTIL IT WAS
WHITER THAN HIS OWN.

with the boy, dropped to the ground. Stealthily making their way along the lines of cars, they came to the other end of the yards, where they found another train on the side-track, ready to pull out.

ried down the length of the train, looking for an open door, concealing himself whenever he saw a lantern approaching. He was determined to have no more dealings with brakemen. Unsuccessful in his quest, he returned to the tank.

"I guess it'll be the rods, sure enough," he whispered. Seeing a lantern stationary a few feet on the opposite side of the tank, he added: "Be quiet until that feller moves on. If we can git in on the rods without them seein' us, I think we'll

be safe. We'll have to wait till she starts, though."

With the creak of loosening brakes, the long train began to move. Eldon selected a huge furniture-car with low-hanging rods, and helped the boy under.

"Now lay cross-ways, an' don't go to sleep," he admonished. "If you git too tired, wait till we come to a grade, an' crawl out. I'll be on the rods, next car back."

"All right, dad," Freddie answered wearily.

"Funny thing nobody saw us," reflected Eldon, taking his place under the car he had chosen for himself.

For some time he watched the ties flickering swiftly beneath him, and the rails, like ribbons, running smoothly from under the wheels. Then, the train started up a long grade. The ties passed less and less rapidly, until they seemed to move but little faster than a man could walk. Eldon had fallen into a half-doze.

From somewhere in front came a hollow thump, repeated several times at short intervals.

"Sounds like some one's poundin' on the cars," observed Eldon drowsily. So in fact they were, but he little suspected for what purpose.

Any hobo could have explained the sounds, had he been told that "Stoney" Harrison was on this train. He never took money from any one whom he caught stealing a ride. Instead, he seemed to encourage the practise by pretending not to see the culprits until they reached the Clark Mountain grade, when he would jump to the ground and run along beside the cars, pelting the unfortunates on the rods with rocks. By this playful habit, he had almost stopped the hobo-travel on that division.

Because Eldon knew nothing of this, he paid little attention to the sounds. The loud roar of escaping steam from the engine was almost deafening. But, had he listened closely, he might have heard a faint, shrill cry. Soon he noted that more dust than usual was in the air. Something was being dragged by the forward trucks. The moment he saw it, the thing worked free. It came toward him. With trembling hand, he seized the limp shape, raised it, and looked into the bruised, bloody face of his boy.

Stoney Harrison muttered to himself, as he gathered another armful of rocks. "I bet them 'boes 'll wish they'd forgot to come on this train before I'm through with 'em."

Turning, he saw a huge, dusty figure stagger from the shadow of the train, bearing a bundle in its arms. With a gasp of comprehension, the brakeman started forward.

"Why, it's a kid! My God! What've I done? What've I done? Put 'im down, you fool. Such a little feller, an' I done it—I knocked 'im off! Oh, I can't stand it!"

Harrison was sobbing brokenly, as he worked over the boy, listening for the feeble heart-beats.

Eldon had stood aside, momentarily awed by the other's emotion.

"You killed him, and I'm agoin' to kill you. Goin' to mash you," he said calmly, beginning to remove his coat. The mad gleam in his eyes was all that betrayed his fury.

With an effort, the brakeman controlled his voice. "He ain't dead, you big mutt. You go over by them bushes an' git some water in your hat. Now hurry."

When the water was brought, Harrison bathed the grimy little face until it was whiter than his own, and with his fingers brushed the cinders out of the matted hair. Eldon dumbly chafed the boy's hands. After weary hours of suspense, Freddie opened his eyes, seemingly awakened by the far-off shriek of a locomotive that echoed among the hills.

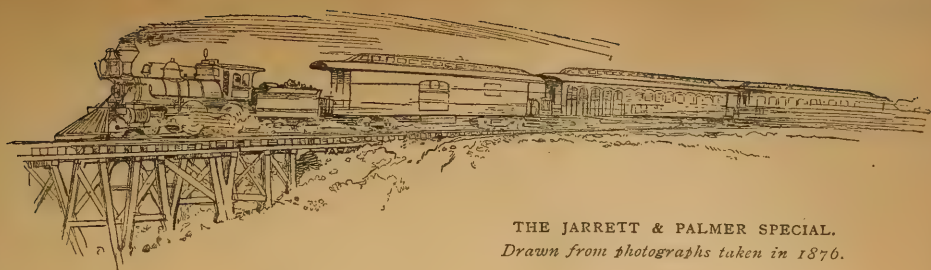
Harrison arose stiffly to his feet.

"That's the south-bound passenger. I'm goin' to flag 'er. You an' the kid can get on, an' stay on till you get to where you're goin'. Here's some money. I got my pay yesterday, so you can buy the little feller somethin' to eat."

As Eldon hesitated, he continued bitterly. "You don't need to worry about gettin' even. Just tell the people on that train what I done, an' they'll see that you git satisfaction. The boys 're all down on me, anyway."

Eldon's face lighted with a sudden resolve. "Not by a jugful! I'll tell 'em—you saved my boy—that you're white clear through."

And he held out his hand.



THE JARRETT & PALMER SPECIAL.
Drawn from photographs taken in 1876.

OLD-TIMER TALES.

The Jarrett & Palmer Special.

BY FRED. W. SAWARD.

THE account of this record trip of thirty-four years ago, we are sure, will prove as interesting to the younger men of the railway world of to-day as to their elders who are furnishing the stories for this department. It was something to have taken a train clear across the United States in those days—it was an achievement worth recording in these pages, and we are glad to have the opportunity.

Think of spinning down the steep grades of the Rockies under hand-brakes! Think of one engine running the entire distance from Ogden, Utah, to Oakland, California! Those were some of the interesting features of the run of this famous trip.

With the Crudities of Early-Day Facilities, the Time Made by This Train for 3,316 Miles—83 Hours, 37 Minutes—Was the Established Record for 30 Years.

THE railroad man lives much in the present, and yet he finds interest in the achievements of the past. Therefore, let us look back at the record of the transcontinental trip of 1876, that was a record for thirty years. That "there were giants in those days" is an old assertion, and while this often gives rise to exaggeration, it is a fact that in railroading the past has

witnessed some achievements of notable consequence.

While the Pyramids and other vast accomplishments of early days might be, and probably were, put together rather crudely, railroading has always required a large measure of exactness for a successful outcome. There has always been the same narrow wheelway of iron and steel, and the same narrow flange has, of itself, stood between safety and danger.

Series began in the February Railroad Man's Magazine. Single Copies, 10 cents.

With all the crudities of early-day facilities, there was accomplished in the Centennial year a transcontinental trip from Jersey City, New Jersey, to San Francisco, California, which established a record that was not excelled for nearly thirty years.

It is true that over certain portions of the route, in the intervening years, various trains from time to time made greater speed; but such limited feats are more easily accomplished, of course, than is one great through run from ocean to ocean. Therefore, it was in every way remarkable that the Jarrett & Palmer special train of June 1-4, 1876, established a record of eighty-three hours and thirty-seven minutes for the trip to the Golden Gate—a record that was not equaled until the late E. H. Harriman, hurrying back from his activities in stricken San Francisco, achieved, in May, 1906, the wonderful transcontinental time of seventy-one hours and twenty-seven minutes—just thirty-three minutes less than three days. The best schedule time of to-day is one hundred hours and fifty-eight minutes.

Object of the Train.

The Jarrett & Palmer train made a specially arranged trip to transport the leading members of a theatrical company across the country. It was, as will be recalled, the Centennial year. Every one was thinking of our nation's century of progress; the rail route to the Pacific was almost a novelty—only seven years old—and so it seemed most opportune for the theatrical people in question to secure good press-agent stuff at that particular time by making a record run, such as had never been accomplished before.

Moreover, the Pennsylvania Railroad people were then getting their road in excellent condition, according to the moderate standards of that day, and having already made certain experiments of their own in fast running from Jersey City to Pittsburgh, and even to Chicago, the management fell in very readily with the proposition to start a fast special train on its way to the Pacific coast.

It was at 12.53 A.M. on the morning of June 1, 1876, that the record-making train left Jersey City, and Oakland, California, from whence the ferry to San

Francisco was taken, was reached June 4 at 12.30 P.M., New York time, or 9.29 A.M., San Francisco time. San Francisco itself was reached by boat at 9.43 A.M., local time. This made an actual record from ferry to ferry, Jersey City to Oakland, of eighty-three hours and thirty-seven minutes—just a little less than three and a half days.

A Notable Achievement.

When we consider that the scheduled running time of the period averaged seven and a half to eight days, it will be realized how notable was the achievement of the Jarrett & Palmer special. And particularly it is to be noted that the period was not far removed from the days of Lewis and Clark and the pioneers of the overland route, being, in fact, less than thirty years after the gold-seekers' rush to California in 1849.

A paragraph of contemporaneous comment states that no unpleasant experiences marred the trip, but it is quite probable that the passengers had a bit of shaking up and were often unsteady on their feet if they wished to stroll about, for undoubtedly it was not all smooth sailing over the long route in those early days. Despite all efforts made to have the lines as clear as possible, there were, of course, innumerable slow-ups and minor delays incidental to so long a trip.

The Make-Up.

The train consisted of a baggage-car, a coach designated as a smoking and commissary car, and one Pullman sleeper. The baggage-car served the very practical purpose of carrying an additional supply of coal, as well as the luggage of the travelers; and this was an important detail, for, be it known, the entire distance from Jersey City to Pittsburgh was run without a stop.

While it was an easy matter to take water from the track tanks of the Pennsylvania Railroad, it was necessary to replenish the supply of coal on the tender from bags of fuel carried in the forward part of the baggage-car. Eight bags of first-class mail were also carried by request of the Post-Office Department.

The route was over six different rail-

road lines, for in those days the Pennsylvania route to Chicago was operated as three separate roads — the United Railroad of New Jersey (Jersey City to Philadelphia), the Pennsylvania Railroad (Philadelphia to Pittsburgh), and the Pittsburgh, Fort Wayne and Chicago, from there on to the lakeside city.

From Chicago the route westward was over the Chicago and Northwestern to Council Bluffs; the Union Pacific, from Council Bluffs to Ogden, and the Central Pacific, from Ogden to San Francisco, California.

The total distance was three thousand three hundred and sixteen miles, and the weight of the train was one hundred and twenty-six tons. The rate of speed, including stops, for the whole distance was equivalent to forty miles an hour. What might be termed sectional details of the trip were as follows:

Jersey City to Pittsburgh, 440 miles—10 hours, 5 minutes.

Pittsburgh to Chicago, 468 miles—11 hours, 31 minutes.

Chicago to Council Bluffs, 488 miles—11 hours, 30 minutes.

Council Bluffs to Ogden, 1,033 miles—24 hours, 50 minutes.

Ogden to San Francisco, 876 miles—23 hours, 38 minutes.

These time-figures aggregate 81 hours, 34 minutes; so that apparently 2 hours, 3 minutes were involved in what might be termed division terminal delays.

It will be noticed that only in the instances of the Chicago eighteen-hour trains is the distance between Jersey City, Chicago, or any of the farther points noted above, covered in any better time by regular trains to-day — thirty-three years after the above recorded feat.

Some of the Passengers.

The passengers on the record-breaking train of the Centennial year included the prominent members of the Jarrett & Palmer theatrical company, a few men identified with transportation interests, and several representatives of the foreign and American press. In all, perhaps thirty persons covered more or less of the distance, and the rate of fare to the through passengers was said to be five hundred dollars each.

A. J. Cassatt, the late president of the Pennsylvania Railroad Company, was then a young man of thirty-seven, but had already attained the rank of third vice-president of the road and was becoming known as a capitalist. He took a deep interest in the speed accomplishments of the day, and made the trip to Chicago on the train.

Another very prominent passenger was General Horace Porter, then fresh from his interesting career with General Grant in the field and in the White House, holding at the time the vice-presidency of the Pullman Palace Car Company. He was a passenger as far as Chicago, and some time ago, while ambassador to France, wrote from Paris in answer to a request for his recollections of the trip, explaining that, among other details:

"As many engineers accompanied the train as there were divisions on the route between stops, so that the engine could be run over each section by an engineer familiar with that run.

"The train was greeted by brass bands and fireworks at several points, and the passengers returned the compliments, in a measure, by setting off fireworks from the rear platform of the last car when passing large towns."

Lawrence Barrett was the leading man of the Jarrett & Palmer company, and his managers, as General Porter recalls the circumstances, were desirous of opening in San Francisco prior to the opening of a theatrical season by an English actor in similar repertoire.

It Appeared Reckless.

As one looks back, it must appear that it was a reckless enterprise — rushing across the continent at such speed under the prevailing conditions. Railroad signaling had not reached anything like the present system of automatic blocks and power interlocking installations. Air-brakes were new, and far from their present degree of perfection. Rails were light, and ballasting, excepting on the Pennsylvania itself, was of nothing like the present standard.

It is only when we look back at the many changes in construction, the reduction in grades, and the elimination of curves that have been achieved in recent

years; when we consider the heavier rails now in use, the amount of second track that has been put in place, and the development of motive power, that we realize what was accomplished in spite of the crudities of the period.

In 1876 there were no vestibule cars, the Pullman sleepers were far from the standard of the present type, and dining-cars were primitive in arrangement. In fact, it might be said that all cars of the present day are larger, heavier, and safer than those of a generation ago, with better equipment in every degree.

The trip over the Pennsylvania presented no notable physical difficulties aside from the crossing of the Alleghany Mountains at an elevation of two thousand two hundred and fifty feet above the sea. From Pittsburgh to Chicago and the Missouri River the line is as a rule level, but there were in those days innumerable grade crossings of railroads and highways, requiring caution. Beyond Omaha the country becomes steadily more rugged. The Rocky Mountains were crossed at an elevation of eight thousand two hundred and forty-two feet, and the Sierra Nevada at seven thousand and forty-two feet.

One Engine's Run.

Naturally the greatest degree of interest attached to the trip over the Central Pacific, the line built during the Civil War days in the face of great financial, technical, and commercial difficulties.

Over this rugged route only a little better than thirty-six miles an hour could be accomplished. In the absence of track tanks, time was required to take water, and as one locomotive was run through the entire distance from Ogden to Oakland Wharf, it was necessary to stop for coal as well.

So long a run by one engine was one of the most notable features of the trip. The locomotive was one of the products of the Schenectady Locomotive Works, and would be accounted small indeed today, weighing only sixty-five thousand four hundred and fifty pounds. As a result of the fast trip across the continent, with many cautionary slow-downs, the brake-shoes on the cars were badly worn on arrival at Ogden, and the Central Pacific people not having any of the same

pattern to replace them, the train was run by hand-brakes only from Ogden to Truckee.

The speed was materially lessened on the heavy descending grades, as the men feared losing control of the train.

On arrival at Truckee, Nevada, a Central Pacific car, with air-brakes in good order, was coupled onto the train, in order that the trip down the mountain might be made safely; and at the next station beyond, Summit, a second additional car was coupled in as a further precautionary measure.

When the obstacles in the way of heavy grades and curves, of which the line from Ogden to Oakland Wharf consists, are taken into consideration, it will be seen that pretty fast running was indulged in.

Through the Sierras.

From Ogden to Wells, 220 miles, the line is broken, much of it curved, with maximum grades of 95 feet per mile, the sum of the ascending grades between these two points being then 3,500 feet. From Wells to Wadsworth, 336 miles, the grade is generally descending, with a great many sharp curves in the cañon of the Humboldt River, which of course are not conducive to fast running. From Wadsworth to the summit of the Sierra Nevada, 83 miles, is a continuous ascending grade, maximum being 105.6 feet per mile, and difference in elevation to be overcome 2,940 feet, whence there is a steady drop for a distance of 100 miles, with a maximum grade of 116 feet per mile. From Wadsworth to Rocklin, 170 miles, the line is very crooked, the maximum curve being 10 degrees.

About midway between Sacramento and Oakland Wharf, trains are ferried over the Straits of Carquinez—one mile across—and of course this materially retards the making of average fast time between those two points, it usually requiring twenty minutes to take a train across.

The Railroad Men Who Directed.

As to the personnel of those who had to do with the success of the trip, the following officials might be mentioned: United Railroad of New Jersey, F. Walcott Jackson, general superintendent, now de-

ceased; Pennsylvania Railroad, G. Clinton Gardner, general superintendent, now deceased; Robert Pitcairn, superintendent at Pittsburgh, now deceased; and James McCrea, superintendent at Harrisburg, now president of the road. Mr. McCrea, it might be said in passing, was at that time only twenty-eight years of age; but we were then not far from the Civil War period, when colonels aged twenty-five and generals aged thirty showed they could bear responsibilities.

On the Pittsburgh, Fort Wayne and Chicago, J. D. Layng was general manager. He later became identified with the West Shore, and died but a short time ago. Marvin Hughitt, now president of the Chicago and Northwestern, was then general superintendent of that road. The Union Pacific division superintendents were as follows: P. J. Nichols and S. T. Shankland, Laramie, Wyoming; O. H. Earle, Evanston, and J. T. Clark, Cheyenne, Wyoming. Mr. Nichols became general superintendent of the Nebraska division in 1896.

On the Central Pacific, A. N. Towne was general superintendent; John Corning, assistant general superintendent; and division superintendents were as follows: R. H. Platt, Ogden; G. W. Codington, Carlin; Frank Free, Wadsworth; J. A. Fillmore, Sacramento; and E. C. Fellows, Oakland. Messrs. Fillmore and Towne rose to more prominent positions in the service of the Southern Pacific, but the others do not appear in any recent record of railroad officials.

The next Old-Timer Tale will tell of the famous locomotive, 999, which held the record for speed in her day.

Turning from consideration of the operating men of that day to those of the present time, it is indeed notable to what an extent the active men of the present time were either just commencing their railroad careers or were mere youngsters at school.

William Lee Park, now general superintendent of the Union Pacific, was a seventeen-year-old brakeman on that road, and J. O. Brinkerhoff, a division superintendent, was a conductor. Of the present Southern Pacific operating staff, practically only H. J. Small has official railroad experience dating back to the Centennial year. Mr. Small, now general superintendent of motive power, was then general foreman for the International and Great Northern, in Texas, being a young man of twenty-seven years.

The Pennsylvania staff is notably permanent, but even on this system we find that but four of the Fort Wayne men can date back thirty-three years or more—J. J. Turner, now third vice-president in charge of the transportation department, was a telegraph operator, aged twenty-three; George L. Peck, general manager, was a train despatcher, a mere boy of eighteen; Charles Watts, general superintendent of passenger transportation, was a passenger trainmaster at Logansport, Indiana; and A. M. Schoyer, general superintendent, was, at the time, a telegraph operator.

As we consider the records of to-day, let us, at the same time, give full credit to the railroad men of 1876.

A CLAIM FOR DAMAGES.

—, Kan., Oct. 5, 1909.

MR. CLAIM AGENT:

I kindly ast you for demege for burning a strow stack of twenty akers of weat wich i ast 10 dolers, it was burnt the 30 day of September by a frait trane and I worked with my to boys all after none to save my corn and i have sustaned so much damish that i sink i am justified to som pay and today, Oct. 5 the west lokle kild 2 pigs for me wich wold wad 50 pons a pese and i all so clame pay for them that wes worth 4 dolers a pese wen-ever somsing gits out it is one the track this time a year wen thay ar holen weat som of

the cars leak and skater weat and even all along the track and it is all the time kilen chickens and terkes and they ar wert money so i wold like for younes to fense your rode with chicken wies i sink the law requires it the track cuts throw my farm and my bildens ar prity close to the track i hope you will look at it rite and give me clere sattesfachen i spoke to Keley, the sechen bose and he said he wold sem in a load the straw the hogs jist got kild today so plesse let me know by retern male excuse bad spelen bot give me satesfachen. your friend,

—Rock Island Employes' Magazine.



FROM SUNNY ITALY.

BY A. V. HOWELL.

Written for "The Railroad Man's Magazine."

DISSA poor Ital, eet worka hard to feexa da railrod tracka,
To maak da mooch da fine condish by da pick go cracka da cracka.
No time for to play wid da monk, worka hard for dollara ten,
An' after feex da railrod up—oh, gee! starta over again.

When dees was in da old countree eet worka like decenta man,

But here I maaka da work like horse or getta fire quick as can.
Eet starta jus' when sun coom up an' worka till eet 'bout go down,

When dees get free ride wid oder Ital to fine boxa car by town.

Dis worka may be tena twelve year, an' surea I do it right,
Helpa pusha in da ties an' screwa da fastnin' tight.
I sticka righta to da biz of worka on railroda track,
An' savea da moocha 'Mer'can doll to Sunny It go back.

Not dat eet do not deesa place like; me likea eet mooch like fun,

Eet besta place of anywhere to makea lots o' da mon.
Eet gooda place to sell banan' an' havea da organa grind,
Da's why so mena fine Ital da old countree leave behind.

Eet maaka da heart in dees one ache ver' mooch when eet coom to send

Eetselfa back to Sunny It—here I have so manya friend.
But dees can't work here alla da time! That givea me the fit!
Me sava every cent eet can, then go home to Sunny It.

When dees go back eet buya gran' place, whata you calla da peach.

Alla da dollar dees one have then, why dees willa be so reech!

But no matter howa big dees get, widda horses, cows, an' lan',
Eet never forgetta 'Merica, where eet was great railroda man.

IN THE GRIP.

BY C. W. BEELS.

Love Leads John Wentworth Over a Thorny Path Until He Encounters a Big Black Bear.



IT was a trying day for John Wentworth, the new school principal in the little mountain town beyond the Rockies. A big, unruly, nineteen-year-old youth, who had been sent up for punishment by the lady teacher of the primary school, had been soundly raw-hided and sent home by him. A few minutes had elapsed since the incident, and the school was recovering its normal air, when two harsh, irregular knocks on the door made every pupil glance toward it with a look of expectancy.

"Come in," said the principal, as he continued the rehearsal of his class in physiology. No one entered, and the knocks were repeated in a way that made the door fairly shake on its hinges. With an air of impatience, he walked to the door and opened it. Tall, rugged, and angry, the father of the boy whom he had whipped stood on the threshold with his right hand on his hip-pocket.

"Why haf you mine boy whipped?" he growled.

"Continue your studies and preserve order until I return," said the principal to his pupils as he went out and closed the door after him.

"This is neither the time nor the way to see me on this matter, Mr. Rhiner," he began with dignity, eying his visitor fearlessly. "In half an hour I shall be at your service," he continued as he walked through the lobby toward the entrance, followed by Rhiner.

"I must haf it now explained, and no more time-losing," was the reply, with a nervous move of the hand in the hip-pocket.

Wentworth, who coolly watched every

move of the enraged man, stopped abruptly, thus bringing him within easy reach.

"Take your hand from your pocket, Mr. Rhiner, I warn you," he said sharply. "I vill!" was the snapping rejoinder.

Wentworth's left shot out quickly, and Rhiner's right arm fell helpless by his side, while an old single-barreled percussion pistol clattered on the floor.

Picking it up with a quick movement, Wentworth surveyed his would-be slayer with a gaze that had in it both reproach and compassion, but not a sign of resentment. The face of the other fell as it became tinged with a flush of shame.

"Come back in half an hour, Mr. Rhiner," said Wentworth; "it is of the utmost importance that your son's career should not be endangered by any misunderstanding between us at this time. Take this with you," he added, handing the old-fashioned weapon to the astonished man; "we shall talk the matter over just as if nothing had happened."

School was dismissed, and Rhiner, true to his better nature, had a heart-to-heart talk with the principal. On learning that his boy, William, had lit a cigarette and smoked it in the schoolroom in the presence of the teacher and her eighty pupils, that he had deliberately puffed a cloud of smoke in her eyes when she attempted to take it away from him, that he was not as far advanced in his studies as children of ten and twelve years old, and that he was absolutely without desire to do-better, the wrath of the father knew no bounds.

Indeed, it was only by strong persuasion that Wentworth prevented him from returning home forthwith to administer a sound horsewhipping to his son. When

it was understood that the principal had decided on taking William into his own schoolroom, the face of the elder Rhiner fairly beamed with satisfaction.

"Your own schoolroom! Ach, I thank you, Meesther Ventvorth. That iss it—your own schoolroom! Lash der books in at school, und I vill lash der bad out at home! A goot joke on Villiam!"

He caught one of the principal's hands in both of his as he delivered himself of these abrupt sentences, and laughed till the tears ran down his cheeks as he pictured to himself the dilemma of the scape-grace William.

It was about three weeks before this incident that John Wentworth had arrived in the town of Oval, so-called from the shape of the mountain basin in which it lay. That was a critical time in the school history of the place, as the former principal had resigned in sheer despair in the middle of the spring term because of his failure to preserve order. As there were young men of twenty and young women as old as twenty-five among the pupils, discipline was not an easy matter.

Wentworth, who graduated from an Eastern university, was looking for a suitable town in which to settle and practise law, saw in the position an opportunity to replenish his funds, which were running low. He had paid his expenses at college with money earned by teaching, and so had a special fitness for the position.

He was about twenty-five years old, of compact frame, muscular, and athletic. His face showed keen intelligence, strong will power, and determination.

When he appeared before the school trustees of Oval as a candidate, they eyed him approvingly before they examined his testimonials, and when they read a few of the latter they were highly pleased. It was not, however, until they read a passage referring to his prowess as a member of the football eleven, in the testimonial from the president of his college, that they nudged one another with positive delight, and flashed to one another in unmistakable eye language, "He's just our man."

Half an hour after the last word was spoken to the elder Rhiner, Wentworth was climbing the steep hillside overlooking the town. Clad in sweater and heavy walking shoes, he had already become a

familiar figure to many who lived miles from Oval. At the little cabins of the miners, set in an opening in the forest or perched high up at the head of a gulch thousands of feet from the depths below, he loved to call. His cheery manner and unaffected ways won a welcome that was as refreshing to him as the mountain air.

He took off his cap reverently when he gained the summit. Stretching far away, ridge after ridge rose until the last one faded in cloud and sky—looking like great inert billows on a vast ocean. Then a race down hill, on the other side, jumping over fallen trees and mountain streams as they came in his path.

A deer sprang out of a thicket near him, looked with startled gaze—then dashed through the chaparral. Then the sound of a man's voice fell on his ears. Increasing his pace, he soon came in sight of the road leading to Blankton, which wound round the hill in corkscrew fashion to overcome the heavy grade.

He heard the voice crying, "Whoa! Whoa! Whoa!" Then, after a short interval, in alarmed tones: "Look out, Trixey; Gip will be on top of you! Whoa there, Gip!"

The road directly in front was hidden by chaparral; and while Wentworth was forcing his way through it, he heard the unknown exclaim:

"Dang the tarnation critter that jumped into this mess! If I could only git down from here! But I dassent leave the brake. Whoa, Jess!"

When Wentworth came on the scene, the odd-looking vehicle—a cross between a stage-coach and a circus wagon—drawn by two horses, was in imminent danger of toppling over into the ravine. The off horse was lying on the edge of the slope, and, in his efforts to rise, he was dragging his mate nearer the danger-line.

A girl was at the head of the fallen animal, endeavoring to release him from the harness, while a middle-aged woman stood looking on in helpless fear. In the driver's seat sat a bronzed, typical Westerner, holding the brake fast with his leg, while he pulled the rein on the near animal of the team with a death-grip.

In an instant Wentworth was beside the fallen horse, and, with a few dexterous slashes from his knife, cut him clear of the harness. Then, by a skilful and

muscular effort, he succeeded in assisting the animal to the roadway.

"Good boy! Well done, I swan! I cudn't 'a' done it better'n that myself, stranger," was the greeting of the driver as he shook Wentworth's hand warmly. "I thank ye kindly; for if ye hadn't come when ye did, wagon, plates, and all would 'a' been at the bottom of the gulch.

"This is my wife and daughter," he said by way of introduction. "An' if you'll excuse me, I'll jest go an' try to splice things up a bit."

"We are on our way to Oval," explained the elder woman, after she and her daughter had in turn thanked Wentworth.

"Yes, and should have been obliged to walk the remainder of the way had it not been for your timely service," added the younger. "Besides, we should have lost our valuable art gallery," she added playfully.

Then, seeing the mystified look on Wentworth's face, she enlightened him by telling that they were itinerant photographers on their spring tour of the mining region, with much of their worldly goods in the wagon.

"Papa was thinking more about the loss of his plates and other effects than of himself or of us when you caught us in our predicament," she concluded with a humorously wry countenance.

"I fear that I don't merit your thanks after all," said Wentworth to the young lady, who was now his only listener, her mother having gone to assist in mending the broken traces. "If I guess aright, the horses were frightened by a deer that I unfortunately startled."

"Yes, the deer was the cause of it all. But I don't know which was the more frightened—the deer or the horses. He lit in the center of the road a few yards ahead of them, and, after mama and I scrambled out of the wagon, I remember that he still stood trembling, as if rooted to the spot. When I rushed to the head of Jess, he dashed down the road like a streak."

"Poor fellow, I am thankful, for your sakes, that he wrought no worse mischief. There is only one thing that I have against him: his lack of good taste in fleeing at sight of you."

The young lady evidently thought that

the stranger was presuming too much in paying the compliment on such slight acquaintance, for she made no direct reply.

"Let us see how papa is getting on with the harness?" she said in a matter-of-fact way as she walked toward the wagon.

Wentworth felt the rebuff, but did not show it. He quickly replied: "It looks as if he were ready to start again." Then he said earnestly: "I must express my admiration of the coolness you displayed at the head of that horse, Jess—Miss—" Here he stopped for the expected information.

"Our name is Thorpe. Excuse our rough Western ways for overlooking so necessary an item of introduction." She spoke with perceptibly heightened color, ignoring the tribute paid to her courage.

But she had met a man who was a master of calmness, and in her heart she confessed much to herself as he replied with grace and candor:

"Our introduction—at the head of that kicking, maddened horse—I shall always remember, Miss Thorpe. The name, in this case, was immaterial. Without the name of Thorpe, I should always have remembered you as a girl of nerve and coolness in danger. My name is Wentworth. I am school-principal at Oval."

They had reached the wagon by this time.

"Papa, this gentleman is Mr. Wentworth, school-principal at Oval," she said.

"Well, if you can handle the youngsters as well as you do a horse, hang me if they won't turn out to be wonders."

"Thank Heaven, I have no desperate cases, Mr. Thorpe," he laughingly replied. "But, now that you are ready for the road again, I shall say good afternoon." Here he assisted the ladies into the vehicle. "I am out for my daily spin," he explained as Thorpe offered him a seat in front, beside himself.

"Well, Oval ain't a big place, and you'll easily find us, Mr. Wentworth," he said as he mounted the box.

"Do not forget to call on us," called out Mrs. Thorpe, as they drove off.

"Never a word from Trixey," he said to himself, as he left the highway to plunge once more into his beloved forests. She had smiled at him as she held her dainty head out of the window and

echoed his own "good afternoon," but his heart had a little gnawing pain in it because she had not joined in her mother's invitation.

The wild beauty of the mountain scenery appealed in vain to Wentworth the remainder of that afternoon. Everywhere he looked, he seemed to see the face of the girl whom he had met so strangely. The soft hazel eyes, the rich auburn hair, the arch look followed by the bewitching smile, the saucy, half-defiant poise of the head—all came back to him like the incidents of a delightful dream.

"Trikey—Trikey," he repeated to himself. "An unworthy name for so fair an owner. Must be an outlandish abbreviation of Beatrice, I suppose. Trikey by any other name could look no sweeter. Bah! I really must be getting sentimental," he said as he abruptly ended the soliloquy.

Next day, his quick-eyed pupils noticed that he indulged in unusual fits of abstraction that were followed immediately by enthusiastic work that stirred them all to better effort. Even the dullard, William Rhiner, who required the special attention of the principal—as he formed a class in himself—was roused to use his faculties, and lost all sense of time by the interest he took in the tasks set him. Indeed, he went home from school that day as if he were in a new world—he had found a pleasure in study, and the principal had praised his work!

It was not until a week or two had elapsed that Wentworth called on the Thorpes. He knew that they had rented a vacant building, which they used both as art gallery and dwelling, and that they were kept busy attending to a business that grew larger every day.

It was in the afternoon, just after school dismissed, and Mr. Thorpe at the time was busy in the "dark" room with his negatives, while Mrs. Thorpe was engaged in household duties.

Inquiring for Miss Thorpe, he was directed to a room where that young lady was deftly handling prints in shallow, flat trays. She received him with a warmth of welcome that atoned, he thought, for her coldness at their first meeting, and expressed her regret at being obliged to divide her attention between him and her work.

He noticed with a feeling akin to sorrow that the tips of the nimble, slender fingers were stained with acid; but not a thought did she bestow on them, as she rinsed this print here or examined that proof there, all the while keeping up a running conversation in which good sense and humor prevailed.

"I should like to become your pupil," he ventured during a lull occasioned by her nimble examination of a fresh proof.

"I have no doubt you would be an apt one; if the teacher would prove competent," she replied.

"There is no doubt whatever on the latter point, Miss Thorpe. The incentive created by having you for a teacher would be sufficient alone to make the pupil a success."

"Do pupils usually pay compliments to their teacher?" she answered with gentle irony.

"They would, if they felt the same regard for their teacher that I would have for mine," he said evasively.

"Which means that the pupil would establish rules for himself. I fear I should scarcely prove equal to the task of maintaining discipline," and she laughed, while she looked at him with a peculiar smile.

"The teacher's word would be law," was the answer in a tone of humility.

"That would follow only when the teacher was firm. Don't you think this is a pretty baby?" she quickly asked by way of diversion, as she held toward him a print ready for mounting.

"Yes, just like his father," he answered absent-mindedly, and her merry laughter was increased by his own as the ludicrousness of his reply struck him.

"By the way, Miss Thorpe, there will be a 'sheet and pillow-case ball' at Mrs. Randall's next week, and she sends by me an invitation to Mr. and Mrs. Thorpe and you. I hope you will be able to come," he said eagerly. "Mrs. Randall lives in Oval, about five miles from here, and the drive will be splendid, as we have beautiful moonlight nights."

"This is so kind of Mrs. Randall—and of you," she said simply, with a lingering tone on the "you" that made his heart beat faster. "I shall speak to papa and mama, and have no doubt we can arrange to go."

"Your own sheets and pillow-cases, you know. I have never been at a ball of this kind, and expect it will be jolly."

"I have never been at one, either," she replied, "but some of my friends have, and they say it is just immense. The dancers wear their sheets and cases for a short time only, and then appear in usual dress."

"Well, I shall take it for granted that you will come, and shall arrange ahead for a good driving team. I should like to stay longer, but I feel that I am interfering with your work."

"Please let me speak for myself, Mr. Wentworth," she answered with a pretty toss of the head. "You have *not* interfered with my work. I never allow any one to do so. Consider yourself not guilty."

"Thanks. Then I may come again with an easier mind?"

"With a perfectly easy mind on that score. I am afraid you will soon grow tired of such dull company."

"You shall be the judge," was his reply as he pressed her hand before leaving.

Trixy often thought of the young man, and honestly liked him. She had never analyzed her feelings toward him. In her heart she stood a little in awe of him, although she would never admit it. There was a hidden reserve force about him that somehow impelled her to treat him differently from any other man she had met.

The Randall ball came off, and was pronounced the most successful social event that Oval had seen for a long time.

Wentworth found himself in a heaven of delight as he drove Miss Thorpe to the Randall residence, Mr. and Mrs. Thorpe having decided not to go at the last moment. If the young lady had only guessed at Wentworth's regard for her before the drive began, she was made fully aware of the depth and intensity of his love before the journey ended.

The glorious moonlight, the giant trees that threw their soft shadows now and then across the face of the woman he loved, the great sigh of the mountain breeze as it swept up from the deep gulches and played with stray tresses of her hair, the overpowering sense of loneliness without her to fill the void in his heart and life—all were zealous ministers in urging him to make a declaration of

the love that made his unbending will as subservient as that of a child's.

The horses were walking slowly up the heavy slope that led to the brow of Little Summit when he changed the light, commonplace conversation with a suddenness that almost startled his companion.

"Miss Thorpe, were you ever in sight of a great happiness—so close that you could almost grasp it—and yet felt that it was so far away you might never gain it?" he asked.

"I cannot say that I have," she answered musingly, not divining his meaning. "Any great happiness that I have looked forward to has generally been realized. Seeing papa and mama again, after a year's separation, has been the greatest that I have known."

"The saddest thing about the happiness I speak of, Miss Thorpe, is that the hand which alone can bestow it is sometimes powerless to give it."

"What an enigma, Mr. Wentworth! The hand able to bestow, and yet powerless!"

"Yes; and the owner of the hand in this case is the dearest, best, and fairest on earth to him who humbly craves the happiness."

As he spoke, his eyes glowed, and his face grew pale and showed his strong emotion. Her eyes met his, and all was revealed to her in an instant. Then a frightened look stole over her face, and she breathed nervously as she leaned back.

"I know now what you mean, Mr. Wentworth," she said slowly. "I am sorry. I never thought that you cared—that way. Please do not say any more. It hurts me."

He could see that the drooping lashes were moist with tears.

"And I am a brute, dear, to think only of myself. Rather than have you suffer a single pang on my account, I am willing to bear the pain alone. I have loved you ever since I first met you, and could bear it no longer. And I shall just keep on loving, with the hope that some day—some day—"

The conversation turned into lighter channels so skilfully that before they drove up to the Randall farmhouse he had succeeded, in a great measure, in restoring their former relations.

There was, however, a perceptible re-

serve in her manner that did not escape his keen eyes, and he fondly hoped that the sign was in his favor and not against him.

When Wentworth and Miss Thorpe arrived, they found the farmhouse turned into a series of dressing-rooms. Numerous guests awaited their turn to don their simple garb of white, while a constant stream of white-robed figures passed from the house to the large barn which had been turned into a ballroom. Mrs. Randall and a crowd of merry girls at once seized Miss Thorpe and bore her away, while Wentworth was taken in hand by several of his friends from Oval, who had found the kitchen an excellent retreat in which to obliterate traces of their identity.

There he saw William Rhiner and others of his growing pupils, for each of whom he had a pleasant greeting. To William, especially, he showed marked cordiality, and that individual looked as if he felt proud of the distinction.

Word was passed that the opening dance was about to begin, and off they trooped to the barn. As he passed through the door, Wentworth felt a hand touch him on the back twice, first between the shoulders downward, and then across, but he attached no meaning to the act other than a frolic of one of the merry-makers.

Each masquerader had cut loose holes for eyes and mouth in the pillow-cases, and the scene in the spacious barn had a weird, unearthly aspect to Wentworth's eyes. The light from a row of lamps fixed high on the walls shed a ghostly glare on the figures. The muffled laughter was the only sound that broke the almost oppressive silence. The stalking fantoms expressed themselves to one another wholly in pantomime, evidently fearing that a tone would betray them.

The latter would mean forfeiting the evening's pleasure, in the opinion of a masker.

Then the band—two horns, two violins, and a bass viol—struck up, and the stentorian voice of the caller rang through the spacious building, "Take your partners for the lancers!"

Within half a minute the bewildering mass of over two hundred figures had paired off and were gliding to the music.

Loud above the noise made by the

band, the cries of the caller guided many who were unfamiliar with the dance, and they were especially enthusiastic when he yelled, "Swing your partners!"

Several times during the masked period of the ball Wentworth thought he had singled out his sweetheart; but always detected some movement or action that showed he was mistaken. Then he gave up the task as hopeless, and entered into the spirit of the occasion with a zest that was infectious.

Just before the last dance was called, he was approached by two figures—they were girls, he was sure—who beckoned him to follow them. As he did so, a masked figure swiftly passed him and whispered so that he could hear distinctly: "Be careful and don't sit down."

This appeared very mysterious to Wentworth, who continued to follow the pair to a corner of the room, where they sat down, one on each side, leaving the angle vacant for him. They motioned him to the seat, and he was about to sit down when the whispered warning flashed on him. He declined the honor with pantomimic gesture. He noticed that an unusual number of figures were collected in the vicinity, all standing except the two who were importuning him to sit down.

At this juncture a tall figure came up from a distant part of the room, and, noticing what he thought to be ungallant conduct on the part of Wentworth, took the vacant seat with a bound.

The barn resounded with the wildest and most surprised yell ever emitted from mortal throat. The victim found himself in a monster tub of ice-cold water! What looked to be a seat was a trap, in the form of a large tubful of water, thin boards being laid on top and the whole covered with a horse-blanket.

The victim of this joke turned out to be a Chicago drummer, who had been invited to the ball by a friend of Mrs. Randall, a business man in Oval.

Wentworth felt indignant that he should have been selected for the goat, and was at a loss, at first, to account for the ease with which he had been picked out in the crowd of maskers.

Then he recalled the peculiar sensation experienced as he passed into the building, and at once concluded that the sheet worn by him had been marked by some

one connected with the plot. Even then he laughed to himself at the discomfiture of the jokers, and engaged in the final mask number on the program with his former good humor.

At its close, after he had conducted his partner to a seat, he immediately left the barn for the kitchen, to satisfy himself by an inspection of the sheet. He removed it and the pillow-case on his way, carrying them over his arm.

A hasty examination in the hallway showed that the sheet was marked with a large black cross. He heard an angry voice in the kitchen say:

"You spoiled the fun, you cur! Take that!" Then the sound of a smacking blow, followed by a cry of rage.

As he gained the threshold of the kitchen, he saw a crowd of young men, most of them residents of the valley, standing around William Rhiner and a big, burly young farmer. The latter was pale with anger, and the former held his face in his hands as if in pain.

"What is the matter, William?" Wentworth asked sharply.

"The big coward hit me. He landed on me hard!"

"Yes, and I'll hit you again," said the bully, as he rushed to make good his threat. But Wentworth was between them in an instant.

"Not while I am here," he said quietly and firmly.

"Get out of my way or I'll spoil yer face!" And he rushed with bull force at Wentworth, who quickly sidestepped and tripped him up.

"Remember, we are guests of the owner of this house. There must be no disturbance here," Wentworth said, as the other regained his feet.

"Then we'll have it out in the field, you miserable Eastern carpetbagger! I'll teach you for puttin' in yer nose where yer not ast."

"You are resolved on that?" was the reply.

"If yer don't, I'll follow yer to the town and thrash you before yer sleep."

"I am sorry to do it, but I must save you the trip to town," Wentworth replied. "Not a word to the women about this," he requested, as he went out at the heels of his challenger, followed by all in the room.

The battle was short and bloodless.

The young farmer was as strong as an ox, but ignorant of the rudiments of self-defense. Wentworth had been champion heavy-weight of his college. The larger man rushed and was met by a stiff left jab on the chin that stopped him and jarred him to the toes.

Wentworth feinted for his adversary's eye with his left hand. His antagonist threw both hands high up to ward off the expected blow, and the teacher's right delivered with great force a solar plexus. The result furnished Wentworth and several others ten minutes of hard labor before the bully was restored to consciousness.

Returning to the barn Wentworth found that refreshments were being served, and that no knowledge of the unpleasant occurrence in which he had figured was yet in the possession of the guests. He claimed the honor of a waltz with his hostess, and then sought Miss Thorpe, whom he found surrounded by a knot of admirers.

To his mortification, she laughingly acknowledged that all the "round" dances had been promised to others, but that the first "square" dance would be his. Just then the caller announced a quadrille, and Wentworth led her off to their place, his face showing happiness at being granted even this favor, while his heart reproached her for what to him appeared unkindness, if not indifference.

She listened with much amusement as he told of his fruitless efforts to pick her out from the crowd of maskers, and his hopes would have risen a hundred-fold could he have known that her heart throbbed quicker when she learned that, amid all the gaiety, he had not forgotten her.

It was the only opportunity he had during the evening to be near her, and he was not at all happy in consequence, but he did not overlook a small feat in diplomacy that he believed would meet with her approval. He invited two young ladies of Oval to join her and himself on the homeward trip.

This was the most enjoyable feature of the evening to him. Miss Thorpe, whether or not to show her appreciation of his thoughtfulness, abandoned herself to the enjoyment of the hour. Rare snatches

of song, rollicking choruses in which all joined, laughter and a rapid fire of mirthful small talk, ended the journey all too soon.

When he bade her good-night, he took her hand in both of his. Then yielding to an overmastering impulse, he kissed her on the mouth.

"Good night, dearest," he said, with the boldness of honest love, and was gone.

Trixy Thorpe was too much surprised to say anything.

She closed the door and went to her room. Then she lit the lamp and removed her hat and wrap in a tempest of emotion. Her growing indignation finally found vent in the murmured exclamation:

"How dare he! How dare he!"

After a while she prepared for bed. Just before putting out the light, she took up a small mirror and surveyed her face in it. She suddenly touched the mirror with her lips; then kissed the spot passionately; turned out the light, and got into bed.

Wentworth, whose mind was in a fever of hope and fear over the parting kiss of the night before, made his customary afternoon call on the Thorpes the following day. Mrs. Thorpe informed him that Trixy had gone out to make a business call on one of their patrons. The news made him heartsick. Again, the second day afterward, when he presented himself at the house, he was given a similar explanation, only that it was accompanied by regrets from Mrs. Thorpe that her daughter should have been called away.

He was now convinced that Miss Thorpe avoided him, and he discontinued his visits altogether, seeking diversion from the thoughts that consumed him by taking longer trips than ever into the woods and mountains. The solitude of these increased his woes, and he tried study instead.

Several times he had been on the verge of writing and imploring her pardon for the liberty he had taken; but his pride, and the failing that the man who truly loves a woman can never insult her, forbade him. Moreover, his loyalty to her was unshaken, and hope—though it was hope deferred, still pictured a rift in the clouds.

Several weeks had elapsed, when he received an invitation to join a berrying party that was to make the expedition into the mountains, twelve miles away. The day selected was a school holiday, and he immediately accepted. He learned that Miss Thorpe was to be one of the party.

He knew, by hearsay, that the Thorpes would leave Oval in a few days, and he rejoiced that he was given this opportunity of seeing her once more before bidding her a formal good-by.

He was not fortunate enough to be one of those who were assigned to the coaching wagon in which she rode, but he was in the one immediately behind. She smiled kindly at him, he thought, as she returned his morning salutation, and once or twice on the journey, when she turned to answer a remark made by one of his fellow passengers, she had lowered her eyes on encountering his.

On arriving at the destination, luncheon was spread, and Wentworth contrived to include Miss Thorpe among the ladies on whom he waited. His manner was as cool and buoyant as ever.

The repast finished, the members of the party scattered in little detachments. Wentworth attached himself to a party of five made up by Miss Thorpe, two other ladies, a younger man, and himself.

There were several berry-patches in the vicinity, and they chose one that was high up on the slope, where the surface was rugged. Berrying is a pastime in which it is difficult to keep together for any length of time, especially when each is trying to outdo his neighbor in the exploration of new treasures.

Only once, after they had reached the zone of individual effort, did Wentworth come within talking distance of Miss Thorpe, and then when he attempted to diminish that distance by a forced roundabout route, she was nowhere in sight.

He heard the voices of the others below him, but failed to find the object of his search. He did not trouble himself any further in berrying; he was intent on finding this girl with the unimpressible heart, and once more trying to win her.

Her course led him higher up the mountain and, gaining the crest of a

high cliff, he eagerly looked around in the hope of catching a glimpse of her. Nothing met his gaze but a waving sea of shrubs, and clumps of undergrowth, with here and there a giant fir or pine. He felt that she was eluding him with a purpose. He was all the more determined to find her.

Instinctively he kept working his way toward the summit, although his judgment questioned the probability of a woman attempting the rigors of a climb over the broken and difficult surface. "But she is inscrutable to me in many ways and why not in this?" he reasoned. So he climbed and zigzagged and wound his way until he reached a point which showed him that his path was leading him into a *cul-de-sac*. A great wall of rock rising sheer one hundred feet, barred all progress in front; while the sides sloped at a gradient that defied foothold.

He was inwardly blaming himself for silencing his better judgment in the selection of a course, when he was startled into violent action by the piercing scream of a woman. It came from the blind gorge, his trained ear told him, and he started for that point at a pace that showed no care for bones.

He had jumped, scrambled, and rolled about half the distance, when he heard the rushing of some creature through the low brush, as it approached him.

The next moment a huge black bear appeared speeding toward him in a frenzy of fear. The animal came right in his path, and Wentworth hastily climbed a ledge of rock near by, knowing that this species will not attack a man, if free course is given him.

The bear rushed past in increasing panic, and he continued his race in the opposite direction.

Breathless, he reached a point where he could see Miss Thorpe. Her dress had caught in a bramble. She could not get herself free. She saw the bear coming at her, and in her terrible fright, she picked up a stick that was at her feet and began to flourish it at the animal.

The bear thought that the girl was trying to block his progress. As he approached her, he rose on his hind legs and emitted a growl that pierced Wentworth's heart.

Wentworth quickly came up behind.

The bear stood poised. He seemed to be calculating, with his animal instinct, the real motive of the frightened girl. He approached her with more speed than seemed possible in such a ponderous animal. As she fainted, he caught her in his mighty fore legs. Wentworth was now in front of the beast. A well directed blow with a sharp stone either frightened or stunned him. He dropped his beautiful victim and tore on into the underbrush.

The girl dropped in a heap. Her life seemed to have left her. Only the faintest quiver of her lips showed that the breath was still in her body. Her lips turned ashen.

Wentworth leaned over her. He took her in his arms. He called her name—he called it again.

She made no reply.

Would she never come back to him? There was a tremor of the body; the ashy pallor of the face was changing slowly to the most delicate pink; the quiver of the delicate nostrils could barely be detected as the breath of life was taken in; the transparent eyelids moved tremulously; the parted lips were ripening with a ruby glow; every sign that harbingered her coming back to him was hungrily seized upon by the eyes of the man who loved her better than his life.

She moaned and he pressed her closer to his heart. The eyelids were raised with an effort; then closed again, as if their burden were too heavy. There was a movement of the arms, and again the eyes opened. There was intelligence in them this time, and they rested on John Wentworth's face at first in wonderment; then, with a winning tenderness, she said with an effort:

"I am so glad you found me—John."

"Trixe, dearest, I must never, never lose you again. It would kill me!" The tension of the arms that held her was increased.

"Never again, John, dear. Never again," she said softly, with a sigh of happy resignation.

Then a pair of arms were twined around his neck hesitatingly, as though the venture were fraught with uncertainty.

The kiss that John Wentworth stole was rapturously seized again by the rightful owner.



Recent Railroad Patents.

BY FORREST G. SMITH.

The Vast Network of Railroad Efficiency and Railroad Equipment Has Been Built up by Eighty Years of Such Efforts as These.

We have decided to slightly change the form of our monthly article on Railroad Patents, and to add another feature. For a long time we have been receiving queries from readers seeking advice about patent procedure, and heretofore Mr. Smith has answered these queries by mail. In future we shall run these queries and the answers to them as an appendix to the monthly article. Every reader who has a problem of this nature is welcome to the services of the department, and a letter addressed to Mr. Forrest G. Smith, or to the editor, will receive attention as early as possible.

NOISELESS CROSSING.—Noiseless railway crossings are as a rule rather complicated structures, but a decidedly simple crossing of this class is disclosed in a patent, No. 942,740, December 7, 1909, issued to William C. Peters, of Harrisburg, Pennsylvania. Of course the only crossing which can really be considered as noiseless is one in which a continuous or unbroken rail surface is provided to the wheels of a train passing over either track of the crossing.

Mr. Peters has solved the problem of providing such a rail surface in a crossing, and has embodied his ideas in such a simple device that it is a wonder that others have not thought of the same thing before.

His device is something on the order of the ordinary switch, inasmuch as it embodies a short section of rail, which is to be swung from side to side in the frog of the crossing, so as to aline with one rail or another. This rail section is automatically actuated by the pressure of the car-wheels as they approach the crossing, regardless of the direction in which the car is traveling, and is so perfect in its action that the only perceptible sound of car-wheels passing over

it is the usual sound made as they pass over the meeting-ends of two rails.



REFRIGERATION.—The problem of preserving fruits and vegetables when shipped for a long distance is a serious one, and cities distant from our fruit-growing States can, at best, have over-ripened or home fruit and vegetables. The quantity of ice necessary to transport a train-load of fruit so that it may reach the distant consumer in proper condition is enormous, as compared to the actual cost of the fruit itself.

To economize in the use of ice and other refrigerants, it has been proposed to pre-cool the cars after they have been packed. This is usually done by withdrawing air from one end of the car and replacing it by air at an appropriate temperature introduced at the other end of the car.

This system is objectionable in that it does not replace all of the air in the car promptly, and also because the change of temperature effected is not gradual or uniform throughout the car. Goods of this character are

injured by sudden reduction in temperature and, in a car-load, are naturally unevenly subjected to the change.

To overcome the objectionable features of such a system of precooling, Arthur Faget, of San Francisco, California, has secured a patent, No. 941,443, November 30, 1909. His method, while similar in general principles, contemplates that air be not only introduced at points distant from that at which it is withdrawn, but at various other points more or less nearer the point of exhaust, and that the pipes for admitting the cooling air be directed at various angles so as to equally treat the cargo.

By this method, the entire car-load of goods, upon arriving at its destination, will have an even market value, as all portions of it will be in the same condition.

AUTOMATIC STOP.—A device for automatically stopping trains, when they are run past a danger signal, which differs materially from those heretofore considered, is disclosed in patent No. 942,189, December 7, 1909, issued to William J. Soseene, of Emeryville, Cal. Ordinarily such stopping systems are so arranged that air-brake setting devices within the engine cab are actuated by a trip arranged beside the track.

Locating the trip in this position, however, renders it liable to be disturbed or tampered with. Furthermore, in such systems, as previously constructed, the air-brakes have been applied not only fully but suddenly, which is decidedly disadvantageous.

In the system disclosed by Mr. Soseene, the trip for actuating the mechanism on the engine is in the nature of an arm which is mounted, out of reach, upon the usual semaphore pole and is connected directly with the semaphore. Further, the air-brake setting means upon the engine is so arranged that the brakes will be gradually applied.

DOUBLE CONTROLLER.—It has long been customary to attach to a "motor-car" a "trailer" that is not equipped with motors. In this arrangement, the motor-car must be equipped with motors of sufficient power or number to propel both cars, thus more or less unfitting the motor-car for use as a single unit.

In modern systems, however, conditions arise that render it advantageous to operate cars as either single or double units. For example, during the "rush" hours, or in times of great temporary increase of passenger traffic, it becomes necessary to substantially increase the carrying capacity, although it may not be possible to correspondingly increase the working force.

This result could be secured if two ordinary motor-cars could be coupled together and operated from a single controller. This is exactly what is contemplated in patent No. 941,391, November 30, 1909, issued to Arthur B. Stitzer, of Philadelphia, Pennsylvania.

In this system of control, each of the two cars to be coupled is provided with a specially constructed controller, either at one end or at both ends. The controllers are so connected in the same circuit that any one of them may be used to control the motors of both cars.

As a result, the propelling force applied to the cars may be varied at the will of the motorman according to traffic conditions. Another advantage of this system lies in the fact that should one of the motors burn out, another may be thrown into use instantly without the necessity of waiting for aid from another car, as is now customary.

A NEW SPIKE.—It is seldom that patents on railroad spikes attract interest, but one, covered by patent No. 942,658, December 7, 1909, issued to James T. Nulty, of Philadelphia, Pennsylvania, is so novel and possesses such advantages that it cannot pass without notice and commendation. It is a spike which serves two purposes, and serves them both well. Instead of locating the head of the spike at the upper end of the shank, Mr. Nulty forms it at the middle of the shank.

The head is similar to the ordinary spike head, and when the lower portion of the shank is driven into a tie, the head will engage and hold the base flange of a rail, as does the ordinary spike head. The "upper story" of the spike, so to speak, now performs its function by being bent or driven in toward the rail until its upper end bears against the underside of the rail tread.

Thus the spike not only serves to hold the rail in place upon the tie, but also serves to brace the rail against turning over. Such a spike will be decidedly advantageous on curves and at other danger points.

CONTROLLED CAR-DOORS.

—In that class of railway cars of the "easy access" type, considerable confusion occurs if the passengers themselves have to open the doors. To place the doors under the control of a guard or conductor and to permit all of the doors being opened simultaneously, is the aim of an invention shown in patent No. 942,265, December 7, 1909, issued to Peter M. Kling, of Pittsburgh, Pennsylvania.

The car devised by Mr. Kling is of the usual type mentioned above, but the doors of his car are connected at their upper and lower edges by bars which cause them to move in unison. An arm is connected to one of the doors and is actuated from the piston of an air-cylinder.

By the slight movement of a lever in one direction or the other, the guard can admit air to either end of the cylinder and simultaneously open or close both doors.



NOVEL STREET-CAR.—A novel construction of street railway car is shown in patent No. 935,633, October 5, 1909, issued to Edward A. Barber, of York, Pennsylvania. Mr. Barber aims to provide a closed compartment for the motorman of the car, which will not interfere with the entrance and exit of passengers, and to so arrange the doors closing this compartment and the entrance to the car proper that neither door will interfere with the other.

The compartment for the motorman is to the right when facing the front of the car, and is divided from the platform proper by a short partition and a door, which latter is hinged at one side of the doorway or entrance to the car proper.

The door which closes the entrance to the car proper is hinged at the same side of the said doorway, and while the doors may be independently swung upon their hinges, means is provided for automatically connecting them, so that they may be swung together to open or close either doorway, while they may be independently swung to close or open either or both doorways.

As a result, in the summer months, the motorman's door may be left open as well as the doorway to the car proper, whereas in the winter months, the motorman's door may remain closed while passengers enter or

leave the car. This construction will protect the motormen and provide comfortable temperature conditions within the car.

ANSWERS TO PATENT PROBLEMS.

W. R. D., Brookline, Massachusetts.—Are all applications for patents on railway appliances examined in the same division or by the same examiner in the Patent Office?

There are several divisions in which applications on such inventions are examined, and at present certain classes are being reclassified.



H. D. L., Boston, Massachusetts.—If a party secures a patent, can any one interfere? 2. What is the time-limit on a patent?

1. From your first question, I judge that you wish to know whether or not another party can enter into an interference after a patent is granted. During any time within two years after the date of issue of a patent, an interference may be declared. 2. Seventeen years.



W. K. S., Portland, Oregon.—Suppose that an application should be filed in the Patent Office for a patent, and the Office should reject the same, how long a time does the applicant have to answer the rejection?

One year. Usually a full response to the rejection must be made and such should be made always. That is, full explanation should be given why the reasons for rejection are not proper or well taken and all advantages should be fully pointed out.

NONE KILLED IN TEN YEARS.

GEORGE A. CULLEN, G. P. A. of the Delaware, Lackawanna and Western Railroad, sent the following communication to the *New York Times* recently. We gladly reprint it in *THE RAILROAD MAN'S MAGAZINE*, and, as the *Times* suggests, we will gladly publish any record that matches it. Mr. Cullen writes:

"From time to time recently you have referred to the published statements of certain railroad companies with respect to their enviable records of safety during the last fiscal year.

"Your readers will be interested to learn

that during the entire decade, Jan. 1, 1900, to Jan. 1, 1910, not one passenger has been killed as the result of a train accident on the Lackawanna Railroad. During this period of ten years this road has transported 193,787,224 passengers. Each passenger has been transported an average of 19.91 miles.

"The number of miles run by passenger trains during this time amounts to 65,340,908, which is equal to operating 19,927 separate trains all the way from New York to San Francisco; or a daily train service across the continent continuously for over fifty-four years."



Millions for Railroad Trifles.

BY T. S. DAYTON.

WHEN "company's money" is a vague and boundless something to be squandered in careless extravagance, supplies are ordered chiefly on the theory that it is good for trade. When business was booming, and prosperity stalked through the land, all the railroads were lavish in their purchasing departments. But when the panic of 1907 came, the railroads felt that this generous policy could not be a running mate with solvency. A careful and exhaustive system sprang up among them as a result of this warning, and now railroad housekeeping is one of the highest developed branches of the science of railroading.

Anybody Can See the Big Leaks, but It Takes an Expenditure Committee to Discover the Little Ones, for It Is Through Them the Profits Disappear.



OVER 2,000 miles of lead-pencils, 50,000 boxes of pens, 60 barrels of ink, 4,000 pounds of pins—these are what the employees of the average 5,000-mile railroad use in a twelve-month. The railroads keep a strict guard, nowadays, on the consumption of even these trifling articles. They are economizing in everything, especially by stopping the numberless tiny leaks in their expenditures that in the aggregate mount up into millions.

The Pennsylvania Railroad, for instance, spent \$30,000 in 1907 for rubber bands—just the ordinary kind that you slip around folded sheets of paper. In 1908 the Pennsylvania employees had all the rubber bands they needed, but the

supply cost about \$10,000 less, largely because they were used more carefully.

The greatest businesses in America—the railroads—are to-day realizing, more than ever, that their profits lie to a great extent in their economies. Anybody can see the big leaks. It is the little ones that the expenditure committees are now relentlessly hunting out.

Nearly every large line in the country now has such a committee, generally consisting of several of the high executive officers, whose task it is to see that expenses are kept down to the lowest notch without impairing efficiency. In the matter of supplies of all sorts, their instructions to the department heads run substantially like this: "You can have whatever you need, but you must see that it is used economically."

In no better way could the enormous possibilities of waste and consequent loss on the railroads be better shown than by telling the amount of material and supplies that they buy each year. There are several roads that consume more than \$30,000,000 worth annually.

A Ten-Million Cut.

There are at least nine railways that buy from \$10,000,000 to \$20,000,000, twenty-nine roads buy from \$3,000,000 to \$10,000,000 each, and more than a hundred railroads purchase from \$300,000 to \$3,000,000 worth of material and supplies every twelvemonth.

The aggregate spent annually in this way does not fall far short of the stupendous total of \$700,000,000. From this it will be seen what this great movement toward the economical utilization of material is likely to mean.

Waste with Prosperity.

During the past few prosperous years, when the roads had all and sometimes more business than they could handle, they were lavish in their purchases of everything, from stationery to steam-engines. Business was booming, and the requisitions on the storekeeper were often generously large, owing principally to every one being too busy to give them careful and judicious scrutiny, and to the human failing that goes with a full pocket.

Every one was so rushed with work that there was not time to fix up tools or supplies when they got the least bit out of order. Into the scrap-heap they went.

Now, every requisition is having the acid test applied to it by numerous eminent experts before it gets to the expenditure committee; and after the goods are bought and issued, they do not get into the scrap-dock until they are absolutely used up beyond repair and cannot be utilized for any other purpose.

A Sure Welcome.

On a big system the penny wastings run into thousands of dollars every year. The present movement, inaugurated by the executive heads, runs down through

every department until even the humblest employee is enthusiastically doing his best to help.

There is no more welcome caller in the office of any head of department—or even in that of the president himself—than the man who has a new and practical idea of how the road can save money.

One of the principal tasks of the expenditure committee is the scrutiny of requisitions for supplies. The lists of requisitions come in from the purchasing-agent showing the number and kind of each article wanted, the price, and the name of the firm from whom it will be purchased.

The statistics on file as to the quantity of each item in stock and its monthly or annual consumption in the past are consulted, as well as the prices hitherto paid for it. If everything is O. K., it goes through. The committee's every doubt, however, has to be cleared away before it is passed.

The necessity of using the utmost care and judgment is so strictly impressed on every one from the bottom to the top nowadays, however, that most of the paring down of requirements is done before the requisition is finally submitted to the committee.

Microscope for the President.

Another part of their work is the thorough and searching scrutiny of all accounts covering expenditures outside of the purchase of supplies. These accounts are carefully analyzed before being presented, and comparisons are made, so that their "true inwardness" may be seen at a glance.

Not even the president's expense account escapes the most rigid examination, and the commissary account of the president's private car is no less submitted to the deadly parallel of comparison than that of any of his subordinates.

Nothing is too small to escape. One big trunk line spent some time making exhaustive experiments with pencil-sharpeners in order to find out which was the best and most economical.

The way these little things are wasted is not so strange when one comes to look closely into it. Take rubber bands, for instance. Some roads used to buy these in

pound boxes, and issue them in that way to the various departments.

When a clerk wanted any, he would grab a handful and put them in the drawer of his desk, some to be used, and the rest to gradually get mixed up with papers and slip out of sight or into the waste-basket, shortly necessitating another trip and another handful.

Other roads supplied each size in a separate box, which resulted in nearly every clerk who used rubber bands having a number of boxes in his desk at the same time. Now, the practise is to furnish them in ounce boxes of assorted sizes, and to keep watch that no undue accumulation ensues throughout the office.

Leaking Millions in Cents.

It used to be the case that any one could get from the clerk in charge of the supplies in each office half a dozen lead-pencils at a time if he wished; and if his fancy required a particular kind of pencil, it was forthcoming. Now the clerks get their pencils one at a time, and have to be careful of them. A still greater economy—a saving of from \$25,000 to \$50,000 a year on a good-sized road—is now effected by every one using the same kind and grade of American pencil.

Pens are also dealt out just as carefully—one or two at a time, instead of by the box—and these, too, have been standardized, and their cost cut in half. The pens the big railroads are using now are made of steel, instead of brass, and cost but one-quarter of what they used to.

Vast quantities of letter-heads are used by a big railroad, for there is a lot of correspondence passing to and fro continually. The day of the engraved letter-head and of bond paper has practically passed since these economies have been instituted. That kind of stationery is still supplied to some of the high executives, but they restrict its use to letters addressed to people outside the company.

The cheapest serviceable paper is what is used in company correspondence. Most roads are also vigorously urging the curtailment of letter-writing, and urging the asking of as many questions as possible verbally.

This is to eliminate the writing of letters to the man at the next desk "in order

to get a record of it," as used to be the custom. A hundred thousand dollars a year is a moderate estimate of the saving in this item alone, aside from the time taken in dictating, reading, and signing letters.

Clipping the Station-Agent.

Station-agents used to have generous supplies of stationery, enough to last them two or three years in some cases. Now there are several men who travel over each road checking up and shipping back any surplus stock. A thirty-days' supply is now the maximum allowed on some roads.

On a big system, made up of a number of different lines, there has been a vigorous movement to standardize all supplies and to bulk the purchases. Take the item of way-bills, for example. Such a system uses perhaps twenty million way-bills a year.

They are now printed on paper of a uniform quality and ordered through one purchasing-agent, thus saving from \$40,000 to \$50,000 a year over what they cost when each line used a different form and had them printed separately. By standardizing railroad tickets and mileage books, one Eastern trunk line is now saving over \$100,000 a year in its printing bills.

As an example of how much can be saved in the supplies furnished to general offices alone, it will be only necessary to cite the case of the Pennsylvania. In 1907, that road's general office expenses were \$396,137. Economy and care cut this about \$135,000 during 1908.

Ninety per cent of the operating material and supplies that a railroad purchases finally reaches the scrap-bins. That means that material originally costing \$630,000,000, when it is more or less worn out, is "scrapped." That is where one of the greatest wastes, or the greatest economies, of a railroad lies. Lately nothing has been more closely watched.

Reducing the Scrap-Heap.

Into the scrap-heap, at last, goes every bit of metal from lanterns to locomotives. One of the big Eastern trunk lines receives about \$3,000,000 a year from the sale of this scrap metal. In the old days

it was customary to offer it to buyers as so many tons of "miscellaneous scrap."

The dealers bought and sorted it themselves, frequently realizing enormous profits from so doing. They speculated on the quantity of each kind of the various materials each lot would contain. Now the speculative element is eliminated, for the railroads do their own sorting.

It will surprise most people to learn that there are ninety-eight different kinds of scrap, according to the classification the railroads adopted in 1908, and each kind takes a different price. It is in the rigidity of the inspection, however, that the railroads have been saving money of late.

Before the scrap is offered for sale now it is inspected by no less than four different mechanical experts. Everything that it is possible to utilize, either by repairing or in some other way, is picked out.

Twisted or bent rods are straightened so that they can be used again. If they are broken, they are cut up into bolts. Even the old bolts themselves are re-threaded.

Nothing that can be used over again by repairing, without decreasing its efficiency or taking up too much time, is allowed to go into the scrap to be sold. The result is that, while the amount of scrap disposed of is less in tonnage, it brings, in the aggregate, more than it did, owing to its being so carefully sorted into the many different classes.

Further, the material reclaimed, owing to the rigid inspection, and used over again, on a big road runs into an enormous value—how much of a saving none of the roads have been able to figure accurately, owing to the lack of any standard of prices for second-hand material, but on a large system it must be several millions a year.

From Brooms to Locomotives.

Even bridge-stringers and cross-ties are turned to account after their original usefulness has passed. The former are now used for crossing-planks and all kinds of repairing purposes, and the latter are sold for firewood.

Another paring down in expense is being made by standardizing everything from lead-pencils to locomotives. "Stand-

ardizing," which means using the same type or pattern of each article throughout an entire system, is not a new thing, by any means; but it has never been carried to such an extent as it has during the past two years.

Take it in the unconsidered item of tools for cleaning cars, stations, and offices. The Santa Fe system recently announced that it uses annually about 26,000 brooms, 25,000 hand-mops, 25,000 scrubbing-brushes, and 20,000 boxes of soap.

The brooms, mops, and scrubbing-brushes are each of the same type and kind all over the line, and the soap is all of one quality. This is true of nearly every other large railroad in the United States.

The economical principle is obvious: 25,000 brooms of the same pattern cost less than that number in six different designs.

Comparisons of Cost.

In brooms and scrubbing-brushes, as well as in the vaster items of consumption, the standard has not been decided upon until after long and exhaustive tests have been made. Statistics are being amplified to show what ties have the longest life and give the least trouble from spiking.

From the records of the spikes the design requiring the least renewals and working the least injury to the ties is determined. From the records of fire-boxes the designs and character of sheets giving longest life and best service per unit of first cost and repairs are learned.

From the fuel records the value of different kinds of coal are known, and a record of performance as to tonnage and mileage is at hand as between various classes of engines and engine-crews. And so it goes all through the list. Everything is being most carefully supervised and watched in the most systematic way that can be devised.

Of course, the vast masses of comparative statistics necessary for these economy committees cost a great deal of money; also the army of supervisors whose duty it is to be continually on the watch against waste. But it is already apparent that the cost of saving these millions is infinitesimal compared with the huge result.

Watch for the Gleaming Eye!

BY AL. HERRON,

Detective for the Wabash Railroad

VARIOUS schemes are used by railroad detectives in landing a quarry. Frequently the man who is being hunted is either so heavily disguised or so elusive in his habits that he can make a get-away without any trouble. It takes some particular personal fault or trait of his to finally get him in the meshes of the law. Al. Herron generally manages to land his man by the eyes; but he had several very remarkable encounters while looking for eyes.

The Unique Method Used by an Old Wabash Detective In Successfully Running Down Some of the Men Who "Attacked" the Road.

DETECTIVE work has been reduced to such a system these days that the old maxim, "It takes a thief to catch a thief," has no place in our category.

The chief requisite is honesty; next, persistence, watchfulness, patience; lastly, and always, courage, nerve, *nerve!*

There isn't so much romance in real detective work as is generally supposed. Candidly, I was attracted by this alleged romance. I didn't find out my mistake until I had learned a new profession.

Although a railroad detective's life is mostly occupied with the serious problem of criminology, he frequently runs across many humorous incidents.

All detectives have met with their failure cases. If a detective has not—well, he isn't a detective. A detective denying that truth is an utter stranger to veracity.

I have met and overtaken a lot of crooked people during my thirty-odd years of duty as a detective—private and professional, railroad and otherwise—yet I do not claim to be a great criminal-hunter.

I have been successful because I've made a study of crime and have not trust-

ed so much to luck as some detectives, notwithstanding luck does indeed play an important part in a detective's life. Any good detective who has made a study of criminal types cannot only recognize the traits of the type, but he can, if the chances are not altogether unfavorable, catch his man and prove him a criminal.

I always remember a man by his eyes. If I once get a square look at a man's eyes, I would recognize him if I met him anywhere. The face is always changing; the eyes never change.

A man without strongly marked features can deceive the shrewdest detectives, if the latter have not made a study of the eyes. There are men whose faces are completely changed by shaving off a mustache; even a week's growth of beard and a change of clothing will disguise some men.

There are other men who look like tramps with a three days' stubble on their faces. A change from a stiff hat to a soft hat completely alters some; but, if you have noted their eyes, you cannot mistake them.

Every profession stamps its imprint on the eyes. If you notice closely, you will observe that the eyes of the merchant

differ from those of the lawyer; the eyes of the day laborer from those of the skilled railroad mechanic.

Next to the eyes, I note the walk of men. A criminal cannot walk like an honest man. Indeed, I can almost tell a thief by listening to his footsteps.

Perhaps my quickest deduction in ap-

this time a Chicago man was appointed superintendent of a branch of the Wabash that had suffered a recent attack presumably by this same train-agent, and I, too, began my connection with the same railroad.

It was only a few days after our appointment. We were at headquarters in



IN HIS VERY BOLDNESS LAY THE SECRET OF HIS SUCCESS.

prehending a thief was in the case of one Throxtton Durgan, who had dropped into the habit of robbing trains on several of the roads running into St. Louis. This was many years ago. It appeared that one man was doing it all. In his very boldness lay the secret of his success.

It was his custom to get on a train, conduct himself in a modest, almost Chesterfieldian, manner, and, when the proper time came, jump up with a pistol and demand money. The detectives were baffled; the sheriff went after the fellow, and came home with two ounces of lead in his system.

An old man who had been known as the leader of a Ku-Klux band went into the swamp after the train-robber, and since then one of his eyes has been permanently closed.

Things went on until the Governor of Missouri desired to be shown. He issued a proclamation offering a reward, but the robber was not caught. Just about

St. Louis, when a man called upon the superintendent.

"My dear sir," he said, "I owe your road ninety-eight cents."

'Twas an Odd Debt.

"I don't know about that," replied the superintendent, while we both looked at the stranger rather sharply. "But, if you do, now's the time to pay. What is it for?"

"It's an odd debt, I agree; but I'm honest, I am, and therefore must pay. I came in on your road this morning from L—. I dropped off to sleep a few minutes after boarding the train, and the conductor neglected to collect my fare; so, you see, I decided to come here and pay off. Here's a dollar."

I was struck by the man's eyes. I said nothing, but began to make my *Sherlockholmesian* deductions.

"What!" exclaimed the superintend-

ent, "you had a chance to beat a railroad company and didn't do it?"

The man started to reply, but I interrupted by accusing him of being too honest, gently informed him that he was Throston Durgan, the train bandit, and placed him under arrest.

The same day, when confronted with evidence, he confessed he was the robber wanted.

A peculiar incident happened to a brother detective, Brock Wilson, and myself, just five weeks prior to my connection with the Wabash.

It was when the notorious Winthrop Weston, the Kansas City train robber, made his escape and was presumed to have flown to St. Louis. Receiving word that Weston was hiding in a barn in the outskirts of the city, we started for the place and were informed that he could be found in the hay-loft. Wilson, who was a single man, volunteered to go up first.

The Eyes in the Loft.

"You stay down there," he said to me, "because you have a family and I have not."

Wilson made his way to the hay-loft, and, in the darkness, caught the sight of two eyes, which, he supposed, were the train robber's.

"Winthrop Weston!" he yelled. "I don't want to take any chances with you! Give yourself up, or I'll shoot—shoot to kill!"

The eyes stared at Wilson for a few seconds, then suddenly he saw them move and they appeared at another corner. But Weston did not open his mouth. There was the same stare and the gleaming eyes, but not a sound.

Wilson again asked for a surrender, and, receiving no reply, fired. To his surprise, the eyes disappeared, but there was no cry of pain. Wilson made his way slowly up to the place where he had seen the eyes gleam and struck a match.

Imagine his surprise, when, instead of the train robber, he found a cat in the last throes of death. He had hit the animal square below the eyes. I came up just as he pulled the cat out of the hay.

While I was associated with Brock Wilson, we succeeded in capturing for

the Wabash Railroad, a pass-forgery named Burns, whose operations involved railroads all over the country.

He had been systematically securing passes from railroads by means of forged requests purporting to have been issued by the officials of various roads.

The applications were always filled out on blanks which appeared to be regular, and stamps and signatures were well counterfeited. Transportation would invariably be issued and sent to Burns. Various aliases were used, but he always received the passes, which, it is alleged, he sold to ticket brokers.

They were altered before they were used, and, when taken up, their ownership could not be traced by the railroads.

Burns's arrest was partly the result of information sent to the chief of the Western Passenger Association. He said that a man giving his name as O. H. Morton, and giving his address on West Monroe Street, Chicago, had been using letters of recommendation on the railroad company, which he had sent to the general superintendent of the Wabash, asking for transportation.

These, he said, purported to bear the superintendent's signature, which was a forgery. The association instructed the chief to take extreme measures to arrest the man. Wilson and I were detailed on the case with promise of an additional reward outside of our regular salary if we succeeded in landing the crook.

We learned that Morton, whose correct name was Burns, had been receiving his mail at the Monroe Street address. There Burns met a young woman, who wanted to return to her home in Fort Wayne, Indiana, but did not have sufficient money. She added that she desired to go via Logansport and thence on the Wabash to Fort Wayne.

Just Ask ME.

"Oh, I can pass you over any line you wish," said Burns.

"You can?" said the woman. She was somewhat surprised that he did not present the appearance of a prosperous railroad man.

"Why," he assured her. "If you want a pass, just ask me. I can get it for you any time."



INSTEAD OF A TRAIN ROBBER HE FOUND A CAT.

Burns asked her to hold any mail that might come addressed to O. H. Morton, and, one day, he called to see if there were any letters for him.

We traced him to Twenty-Second and State Streets, where he was reported to be living. At Twenty-Second Street and Wabash Avenue we were told that a man answering Burns's description was in a house in the next block. We went there and arrested Burns.

Caught with the Goods.

In his room was a satchel containing the papers used by various railroad companies in official correspondence, dies, stamps, inks, and all the necessary materials to forge railroad tickets.

There was also a supply of blank traveling cards issued by the American Railway Union and by almost every other railroad labor organization in the country.

Burns's operations were found to be more extensive than at first supposed. The die-maker and the printer who had furnished Burns with the letter-heads and stamps found in his possession were located, but they had no knowledge of the purposes to which they were put.

The imitations of the letter-heads, stamps and membership cards were exceptionally good. He was tried, convicted and sentenced.

THE "LIMITS" OF ENGINE BUILDING.

The Past Year Has Shown Continued Increase Beyond What Was the Supposed Size.

THE most surprising fact in railroad development during 1909 was the continued and very considerable increase in the size of passenger and freight locomotives. So marked has this been, that we have ceased to hear anything of late about the "limits of size having been surely reached."

The adoption of the Mallet articulated system has made this increase possible. Two locomotives built by the Baldwin Company may be quoted as instances of this construction. A freight locomotive for the Mountain Division of the Southern Pacific Railway, built a few months ago, has 6,393 square feet of heating surface, the engine weighs 213 tons, and the engine and tender together weigh just under 300 tons.

Toward the close of the year the same company built for the Atchison, Topeka and

Santa Fe Railway a still larger locomotive, with 6,621 square feet of heating surface and 1,745 square feet of superheating and reheating surface; the engine alone weighs 231 tons; engine and tender together 350 tons.

The most novel and important departure in the new passenger engines of the year is a huge Mallet 16-wheel locomotive, with two high-pressure 24-inch cylinders driving six coupled 73-inch wheels, and two 38-inch low-pressure cylinders driving four coupled 73-inch wheels.

The total heating surface is 4,756 square feet, and there are 1,121 square feet of superheating and reheating surface. The engine weighs 188 tons, and the engine and tender together 305 tons. Such an engine will be able to haul the exceedingly heavy express trains at a high rate of speed.



THE REBATE.

BY FRANK L. PACKARD.

There Was Real Trouble When Dutchy Damrosch
Got the Lunch-Counter Rights at Dry Notch.

HE was known as Dutchy, but his name was Damrosch. He started railroading as cook's helper on a construction-gang that was laying track across the prairie. As the mileage grew, so Dutchy grew. At first lank and lean, he took on, little by little, the appearance of being comfortably nourished, until, by the time they hit the Rockies, Dutchy's gait had become a waddle and his innocent blue eyes were almost hidden by the great rolls of fat that puffed out his face like a toy balloon.

Then Dutchy, slow of body and likewise of brain, and yearning for a quiet and peaceful existence, secured the lunch-counter rights for Dry Notch. Now, Dry Notch, half-way across the prairie, consisted of a water-tank, a small roundhouse, a smaller station and a diminutive general store. But because of its geographical position it was headquarters for the Mid-Plains Division.

Brett was superintendent in those days, Thornley was master mechanic, and MacDonald chief dispatcher. With the railroad hands and train-crews they comprised the population of Dry Notch, unless there might be added a few ranchers somewhere in the neighborhood. The staff bunked in a room over the station, and the men had their quarters in the roundhouse, but one and all they ate at Dutchy's counter. Sinkers and coffee, apple pie and sandwiches they stood as a steady diet for a month after he had appeared upon the scene, and then a delegation waited upon him and demanded dishes more substantial.

"You can make meat pies and chicken stew and all that sort of thing, can't you?" they demanded.

"Sure!" said Dutchy. "But dot iss expensive."

Money was no object, they assured him, and thereupon proceeded to fix a schedule of prices—fifteen cents for a meat pie; twenty cents for a chicken stew—with

two slices of bread and butter thrown in for good measure.

"Vell," said Dutchy, "so iss it."

And a few nights later, true to his promise, they got out their chicken stew—canned chicken stew.

The huge pot, full to the brim, had been emptied, and Dutchy, his face beaming with smiles, had bustled into the back room for a further supply, when MacDonald's voice rose plaintively:

"It's—it's *chicken*, isn't it?"

The crowd looked inquiringly at the despatcher.

"Because," went on MacDonald softly, "I—I never heard of any chickens in Dry Notch."

And then, amid the laughter that ensued, Thornley rose dramatically from his seat, and, picking up a bone from his plate, waved it aloft.

"Gentlemen, this is no time for mirth!" he cried. "We are the victims of a swindle. We are in the clutch of an octopus—that is to say, a food trust, composed of Dutchy and the dining-car conductors of Nos. 1 and 2. It is my painful duty to assert that I recognize this bone as the identical bone on which I fed two nights ago coming up the line on No. 1."

Dutchy entered, staggering under the load of the replenished pot, when Thornley solemnly demanded a rebate on the spot.

"Vat iss it?" said Dutchy, halting and peering anxiously into the pot; then, evidently reassured that no essential ingredient had been forgotten, he looked up at the ring of faces that were regarding him with grave inquiry. "Vat iss a repate?" he demanded. "It something iss mit der bread und butter for twenty cents to go, yess?"

The crowd roared, and up and down the division train—crews, engine—crews, and section-gangs got the joke and passed it on until the lunch-counter became known to every man on the system as "The Rebate."

They did not explain the joke to Dutchy, and for days he endured the chaff stolidly, though with much bewilderment, until, one afternoon, MacDonald patiently and ploddingly acquainted him with the unhallowed baseness of one Thornley—helping himself, by way of compensa-

tion, to the heap of doughnuts under the glass cover.

Dutchy listened, his cheeks getting redder and redder as MacDonald, exaggerating some hundredfold, suavely rubbed it in.

"Dot Thornley iss—iss a pig!" shouted Dutchy suddenly, as the light burst in upon him.

MacDonald nodded assent, his mouth too full of doughnut to speak.

"Und I a fool iss, yess?" continued the proprietor, pounding a fat fist on the counter.

Again MacDonald nodded, smiling sweetly—and reached for another doughnut.

But this time Dutchy's fingers were firmly clasped around the cover, and he peered suspiciously through the glass at the number of doughnuts remaining, then glared at the despatcher.

"You—you git out from here!" he said slowly, but with rising emphasis.

And MacDonald, chuckling, went.

It was not until after supper that same evening, when No. 1 pulled in, that Dutchy made any move toward retribution—then Dutchy cut loose. It was Taggart who got it—little Shorty Taggart, the driver of No. 1, who was red-haired and an inveterate joker, and likewise a great crony with Thornley.

The first intimation MacDonald had that anything was up was an enraged howl that, rising above the tumult of the station, reached him where he sat in the despatcher's office. There was no mistaking that voice—it was Dutchy's! He stuck his head hastily out of the window, while Thornley, who was in the room, leaned over his shoulder.

Dutchy was bellowing like a mad bull. "Say it! Shusst say it! Oh! py golly!"

Here followed a volcanic eruption of guttural German with one or two words common to all languages intermingled.

Then, flying through the doorway of the lunch-room, dashing down the platform, scattering loungers, passengers, and car-tinks in all directions, in a mad rush for the engine end of the train, tore a short figure in tight-fitting, bandy-legged overalls, whose flaming red hair presented a shining mark for the plate that whizzed past his ear and smashed into a hundred pieces against a baggage-truck.

And Dutchy, blowing hard, his sleeves rolled up over the fat of his arms, waddled to the center of the platform and shook a frantic fist after the retreating engineer.

"I a fool iss no longer yet, don'd it?" he screamed, and, puffing his cheeks in and out like a wheezy injector, he returned, reentered the restaurant, and the door closed behind him with a resounding bang.

"You bet!" said MacDonald eloquently when he could get his breath.

The door opened, and Brett, the super, came in.

"D'ye see Taggart and Dutchy, Brett?" cried Thornley.



PRESENTED A SHINING MARK FOR
THE PLATE THAT WHIZZED
PAST HIS EAR.

MacDonald drew in his head, and the tears were running down his cheeks as he held his sides.

Thornley groped for a chair.

"Guess Taggart was asking for a rebate," he gasped. "It was worth pay to see him run."

"Yes," said Brett, laughing. Then, more seriously: "Look here, you'd better patch it up with Dutchy. There's no use rubbing it in too hard. MacDonald, tell Blaney to put my car on No. 2 when she comes in. I'm going east to-night."

The patching, however, was quite a different matter than talking about it.

The next morning the lunch-room door was ominously closed—and the staff went breakfastless. By listening at the keyhole, and from an occasional glimpse through the window, they knew that Dutchy was inside.

But to pleadings, threats, and door-kickings the occupant was, to all intents and purposes, oblivious. Things began to

look serious for the staff, station and shop hands who were wont to depend on Dutchy for their grub-stakes.

Thornley whistled softly and pulled at his pipe, his feet on the despatcher's desk.

"He'll *have* to open up when No. 97 pulls in," Thornley was saying, more by way of reassuring himself than of presenting any new view of the case to MacDonald. "The company won't stand for any inconvenience to the passengers—that is," he hastened to amend, "not of this kind. What? They've got a sort of lien on that joint, and if he waits for them to get after him he'll get into trouble. Wish Brett were back—he'd make him open up quick, I guess. What's the matter with No. 97, anyhow? Thought you said she was on time?"

"So she is," said MacDonald, grinning. "Hear her?"

From the eastward came the hoarse shriek from the whistle of a five-hundred class.

"Guess I'll go down," said Thornley. "Coming?"

MacDonald nodded and got up from his chair. The two men reached the platform in time to acknowledge a flirt of the hand from Sanders in the cab as the big machine, wheel-tires sparking from the tight-set brakes, rolled slowly past them, coming to a halt farther on.

Simultaneously the door of the lunch-room swung wide open, and on the threshold, completely filling the opening with his bulk, stood Dutchy. In his left hand he held his bell, which he began to ring clamorously; in his right hand, almost but not quite concealed behind his apron, was no less a weapon than a substantial-looking rolling-pin. A crowd of passengers began to surge toward the restaurant, and among them mingled the hungry railroad men of Dry Notch.

"Come on!" shouted Thornley exultantly. "I knew he'd have to open up. Here's where we feed—hm?"

"Vait!" cried Dutchy imperiously, as the head of the column reached him. "You, yess; you, no, Vat iss it?" He was sorting the sheep from the goats, allowing the passengers to enter, pushing the railroaders ruthlessly to one side.

"You, yess; you, no. You, yess; you —oh! py golly!"

He had caught sight of Thornley, and, swinging suddenly, struck out viciously in that direction with the rolling-pin. Being obliged to maintain his position in the doorway, the strategic key to the situation, the jab fell short by two or three inches, barely missing Thornley's nose.

Thornley fell back instinctively.

"Look here, you old ass!" he yelled angrily, "we've had about enough of this. It's past a joke. The company's got a lien on that joint of yours, and we'll close it up so tight you'll never open it again—d'ye hear?"

Dutchy stopped short in the monotonous, "You, yess; you, no," on which he had recommenced, and his paunch began to shake. "Yah!" he cried. "Dot iss a joke. Oh, py golly, *lean!* Dot iss ven you starving get, yah? Ho, ho! Ha, ha!"

In Dutchy's burst of merriment first one and then another joined, until even Thornley, his good nature getting the better of him, roared with the rest at his own expense.

But if this apparent return to good humor on Dutchy's part inspired any hope in the minds of the railroad men that he had relented and that former friendly relations were to be resumed, they were doomed to disappointment, for Dutchy stolidly continued to allow the passengers to go in and as stolidly barred the entrance to the others.

Then they gave it up, and bought out the slender stock of canned goods and biscuits from the shelves of the general store.

They messed in the baggage-room and they swallowed their scanty portions to the tune of "Die Wacht am Rhein," belled out by a strong and sonorous voice through the partition, on the other side of which, laid out in tempting confusion, as they were painfully aware, was plenty.

What they had, however, did little more than whet their appetites, and by three o'clock some of the men were talking of carrying the position by storm, helping themselves, and doing a few fancy stunts with Dutchy.

"We can't have any row," said Thornley, pulling at his mustache and staring at MacDonald. "What had we better do? The boys'll be pulling the old shack down around his ears. He'll fight like blazes, and some one'll get hurt. And

then the company'll want to know what's what. Say, the old Dutchman has got us where he wants us, sure—eh, what?"

MacDonald nodded.

"I'll tell you what it is," Thornley went on impressively, "there's some one besides Dutchy in this. They've been giving him a steer, and I'd give a few to know who it is. It's mighty queer Dutchy 'ud wake up so suddenly to the fact that he was a joke. Then, there isn't enough to that rebate josh to make him so sore. Some one's been stringing him good and plenty. What had we better do?"

"I don't know," MacDonald answered. "Let's go and see if we can't talk him over."

At the sight of the master mechanic and the despatcher heading for the lunch-room, the trainmen and station-hands fell in behind them.

MacDonald halted a few paces from the door. "You boys, stay here," he directed. "Let me see what I can do."

Thornley and the men halted obediently, while MacDonald went on and knocked at the door. There was no response.

"Dut—Mr. Damrosch!" he called. "It's MacDonald. I want to talk to you."

This time his knock was answered, and so suddenly as to cause him to jump back in surprise.

"Vell, vat iss it?" demanded Dutchy, scowling belligerently.

"We're — we're —" stammered MacDonald, his confidence a little shaken at the proprietor's attitude. Then, desperately: "Oh, I say, confound it all, Dutchy, we're hungry."

"So!" Dutchy's exclamation was a world of innocent astonishment and kindly interest.

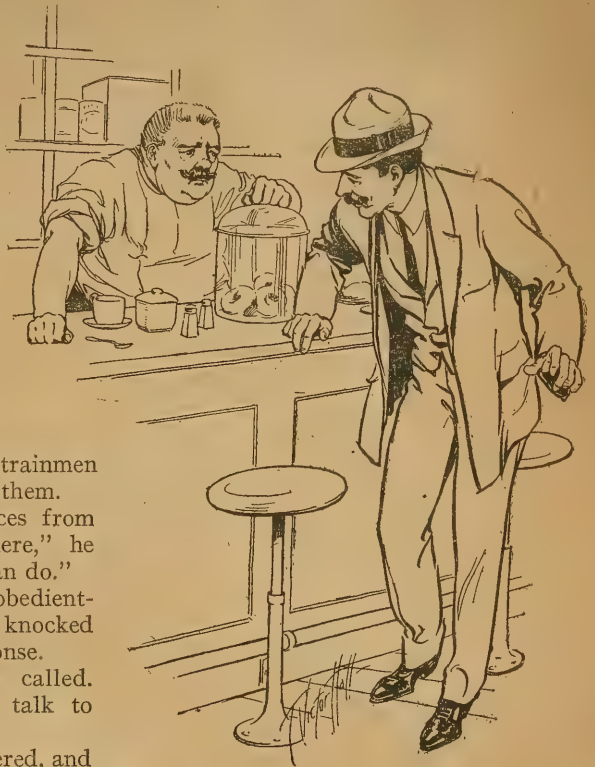
"Yes," went on MacDonald, diplomatically. "You bet we are. It's been a good joke, but you've had the best end of it. Let's call it quits, there's a good fellow, and—and give us all a hand-out."

Dutchy listened attentively to the appeal. "I, a fool iss no longer yet, don't it?" he queried softly.

"You most decidedly are not," MacDonald assured him.

"You vill for repates no longer ask, yet?" persisted Mr. Damrosch.

"Not on your life!" replied the despatcher earnestly, beginning to see daylight. "That's all off. We'll apologize,



PEERED SUSPICIOUSLY THROUGH THE GLASS AT THE NUMBER OF DOUGHNUTS REMAINING.

too, if you like. I promise you, we are quite willing to apologize."

"Vell, den," announced Mr. Damrosch, "ve vill aggravate," and he slammed the door in MacDonald's face.

"Oh, hold on, Dutchy!" cried MacDonald piteously, for he was very hungry. "What did you say?"

"Vat I said iss dot ve vill aggravate!" shouted Dutchy from the other side of the door. "Dot iss English, don't it? Aggravate!"

"He means arbitrate," prompted Thornley from the platform.

"Oh, all right!" said MacDonald. "We'll agree to that, Dutchy. Come on—open up!"

"I vill not mit you aggra—arra—do it

—hang dot vord!" Dutchy asserted decisively, but again opening the door. "But mit Mister Brett I vill do it."

"But Mr. Brett isn't here, you know that," retorted MacDonald, beginning to get exasperated. "And, what's more, he won't be back until the day after tomorrow. I guess you know that, too, don't you?"

Dutchy smiled a patient, chiding smile. "Dot iss too bad," he remarked regretfully. "But dot Thornley a pig iss, und you—oh, py golly! you—I could not you belief. Ve vill vait for Mister Brett."

He was closing the door again, when MacDonald put his foot against the jam

Dutchy looked meditatively into MacDonald's face, and shook his head with a sad smile of wisdom. "I would not in you pelief," he repeated.

"You don't have to. You don't have to believe anybody. Whatever you want us to do we'll do before you let us in to eat. You can't lose. What do you say?"

Mr. Damrosch scratched his head pensively, without taking his eyes off the despatcher. After a minute he tapped MacDonald on the shoulder. "Vell," he announced, "I vill tell you. Listen."

MacDonald listened—incredulously. Then he whistled a low, long drawn-out note of consternation.

"Well, you've got a nerve!" he gasped. "What do you think, eh? The boys'll never—" He stopped suddenly, a smile came over his face, and he chuckled softly to himself. "Dutchy, you're great! It'll be meat for the boys to make Thornley stand for it. That's what you want to do—make Thornley stand for it. Will the boys make him? Oh, will they! Give them the chance. That's the way to handle it. I told you I'd help you. Now, make your *spiel*."

MacDonald turned to the group on the platform. "Dutchy'll arbitrate!" he cried.

At this the men began to push forward, but Dutchy stopped them. "Vait as you iss! Ven der—der—hang dot word—iss, den iss it. Vait!"

They waited, and Dutchy began to count on his fingers. "Dere iss sixteen dot breakfasted, didn'd?" he began.

"Dot—iss—iss—"

"Average 'em up at a quarter apiece," prompted MacDonald in a whisper. "That makes four dollars."

"Iss four dollars—yess," went on Dutchy. "Vell, I vant dot."

"Dere iss der crews dot in-came und out-vent und didn't eat ven der door vas closed. Dot iss two dollars—yess? Vell, I vant dot."

The men came, too, and a roar of de-



"GET OUT!" HE CHOKED.

and, leaning toward Dutchy, said quickly, in an undertone:

"Look here, Dutchy, you're going too far. If I couldn't see any farther than you, I'd wear glasses. Now's the time to make your deal. I'll help you—see? You can get anything out of the boys now, but you push them too far and they'll pull the whole outfit down over your ears. You say what you want, and I'll get it for you."

rision rent the air, in the face of which even Dutchy was a little shaken.

"Stand pat," encouraged MacDonald. "You've got them coming and going."

Dutchy held up his hand for silence. "Dere iss der sixteen over again yet dot dinnered didn't. Dot iss four dollars—yess? Vell, I vant dot. Dot iss four und two und four. Dot iss ten dollars—don't it? Vell, I vant dot, und den you come in—yess, one py one—for a quarter py each."

Then, amid the storm of abuse and jeers that greeted Dutchy's ultimatum, MacDonald, with a final injunction to the proprietor to stand by his guns, turned and joined Thornley and the men, and on his face was the expression of one who has fought in vain for his friends.

"Vell, py golly!" screamed Dutchy above the din. "Vat iss it? Who vas der commencer of dot joke dot iss ten dollars to pay? It iss dot Thornley?"

"Why, you wretched old thief," yelled Thornley, "do you think we're going to pay you for grub we didn't get, because you wouldn't let us have it, and then pay you for it again when you do dole it out? We'll see you further, first."

"It vas agreed in front of der—hang dot vord!—py der—"

"Agreed nothing!" snorted Thornley.

"Dot you vill for repates no longer ask, yet, don't it? Vell, der price ten dollars iss. Dere iss no repate. Oh, py golly, Mister Thornley, dot vas an expensive joke—yess? Dot vas your joke, und I shusht thought me dot I hope you vill pay dot yourself."

Thornley paid. With no good grace, but because, as MacDonald had said they would, the men made him. Disgruntled and angry, he led the file into the restaurant, placing \$10.25 in Dutchy's hand before he crossed the threshold.

Behind him followed MacDonald and the grinning line of men, each contributing their quarters—in advance—for the first square meal they had had that day.

"Eat vat you like," said Dutchy.

Thornley glared. "Eat vat you like!" he mimicked savagely. "I like your colossal generosity, at my expense!"

For a long time there was no other noise save the rattle of dishes and the busy clatter of knives, forks, and spoons. Then Thornley beckoned to Dutchy.

"Vell, vat iss it?" inquired the proprietor from behind the counter.

"Who put you on to this?" demanded Thornley. "I've had to stand for it, and I'd like to know. I would that!"

MacDonald, sitting beside Thornley, noticed, with some misgivings, a peculiar expression sweep over Dutchy's face, but to his relief the proprietor's only reply was a grunt, as he answered the call for more coffee.

"By the hokey, I'll bet it was that red-haired Taggart!" exclaimed Thornley suddenly, turning to the despatcher.

MacDonald buried his face in his cup, ostensibly to drain the last drop, then he set it down quickly and jerked his watch from his pocket. "Holy Moses!" he ejaculated, and fled from the room.

An hour later Dutchy stuck in his head and beckoned to the despatcher. MacDonald walked across the floor and joined him. Dutchy pulled him out of the room and closed the door.

"Dere iss one thing dot I forgotted did," announced Mr. Damrosch.

"What's that?" inquired MacDonald.

"Dere iss five doughnuts dot iss paid for not."

"Oh!" said MacDonald.

"Dot vas der time you told dot it vas, Thornley—yes? Dot vas von dollar py each. Vell, I vant dot—yess?"

"Really!" laughed MacDonald. "Well, I guess *not*!"

"Dot—vas—der—time"—Dutchy was raising his voice, each word growing louder and more distinct than the preceding one. Thornley's chair inside creaked ominously. MacDonald glanced furtively toward the door, and his face grew red—"you—told—dot—"

With a hasty movement, MacDonald clapped one hand over Dutchy's mouth, and with the other thrust a five-dollar bill into his fingers. "Get out!" he choked, and shoved Dutchy violently toward the stairs.

"What did the old fool want?" demanded Thornley, as MacDonald stepped back into the room.

The despatcher made no answer, busying himself over the key.

"Mac," said Thornley, after a minute, "you wait till I get hold of that red-haired Taggart and see—"

"Oh, shut up!" said MacDonald.

Forty-Three Years in the Baggage-Car.

BY E. L. BACON.

IF the casual reader thinks that a baggage-agent's life is a weary, dreary shifting of trunks from day to day, he must not miss this story, for it tells of a life that is filled with excitement and intense with odd happenings. There is no such thing as monotony connected with the baggage hustler's happy lot.

Little wonder, then, that a man close to his ninetieth year and in good health and spirits, who has spent sixty years in railroading and forty-three of those years in a baggage-car, should be able to spin such a yarn as this. And little wonder, too, that he would rather sit on a trunk than in the finest arm-chair ever made.

An Old Agent Who Had an Encounter with a Corpse, Chased Trunk-Charmers by Night, Traveled with Dickens and Spencer, and Frequently Carried as Much as \$30,000 on His Person.



TRUNKS, trunks! It's always the trunks."

The old man stood in the window of his little room in a West Street hotel and looked over to the Chambers Street station of the Erie, from which load after load of baggage was being wheeled across the wide stretch of asphalt.

"Sixty years I've been on the railroad, and forty-three of 'em I've spent with the trunks. I'm eighty-seven years old now, and I'm still handling 'em. And I guess I'll die with 'em. You see, I'm never more than a stone's throw away from 'em.

"In working hours I'm over there in the baggage-room, and the rest of the time you can always find me here in this hotel, where I've been living off and on since before most of the people around here were born. I'd feel kind of lost if I ever got out of sight or hearing of the baggage end of the railroad.

"Sixty years!" He turned slowly

from the window and, with a far-away look in his eyes, seated himself on his trunk—an ancient, ponderous piece of furniture that occupied a large share of the room.

His name was painted on it—Andrew R. Léport. "Don't bother about giving me the chair," he protested. "I usually sit here. Chairs don't agree with me; I've been too long in a baggage-car. I'd be there yet if it wasn't for a little run-in I had with a conductor a year and a half ago.

"After that, an officer of the company came to me and said they'd discovered I was pretty near eighty-six years old, and it was about time I quit running on trains; so now they've got me over there in the baggage-room, though there isn't any reason for it except this new-fangled idea that a man isn't worth much when he gets along toward ninety.

"Sixty years! But it don't seem that long. Sometimes it's hard to realize that it's more than a few months since Jim

Fisk used to come strutting around, with his big cane, bossing everybody.

"Yet, do you know, sir, of all the men I worked and chummed with back in the fifties and sixties, there's not one living to-day. They've all gone into the ghost country. There was one who hung on for a long, long time. He was pretty near as old as I was, though he wouldn't admit it.

The Little Coffins.

"Considering all I've been through, it's a wonder I'm not dead, too. I've been in wrecks, and I've been snowed up for days in blizzards, and I've risked my life in a dozen different ways. We were running round a curve between Deposit and Hancock one night, at something like seventy miles an hour, when six cars were thrown from the track and went rolling down into the frozen Delaware River—all but my baggage-car and the engine.

"How it ever came about so luckily I never could understand. There wasn't one of all the passengers killed or badly hurt, but I must have gone up to the roof of the car and back again two or three times before I stopped. It was the worst shaking up I ever got.

"But I don't figure that as the closest shave I ever had by a good deal. I guess the biggest risk I ever took was with four coffins. And I didn't have to, take it, either. I did it just because I couldn't bear to see a woman cry.

"It was back in the early seventies. At Binghamton a young couple met the train, and they had with them four pine boxes which they wanted to put on the baggage-car. I knew what was inside of 'em at a glance—coffins, little children's coffins.

"Just then somebody came out of the station and said to me: 'These children died up in Massachusetts of scarlet-fever, and the coroner has

ordered them to be buried at once. You take them on this train at your peril. I warn you, you'll be liable to arrest.'

"I took a look at the mother. She was young and pretty. The tears were rolling down her cheeks, and she began to wring her hands and tell me she didn't want her children buried among strangers—that she'd set her heart on having them put in the family plot near her old home in Attica.

"That was too much for me. I said: 'Arrest or no arrest, those coffin will go on the baggage-car!'

"And they did. But maybe I wasn't a scared man between there and Attica! Scarlet-fever was killing off people by scores in those days, and a man's hair would pretty near stand on end at the mere mention of it.

"I shoved those boxes, as far as I could get 'em, to one end, and I squeezed up as far as I could get in the other end,



"CHAIRS DON'T AGREE WITH ME; I'VE BEEN TOO LONG IN A BAGGAGE-CAR."

and all the way to Attica I imagined I could feel the symptoms coming on.

"If I'd had any money to leave, I'd have made my will right then and there. But I guess there were some others scared besides me. That whole train-crew turned mad as wet hens when they found out what was aboard, though, they didn't dare come within swearing-range of me or the baggage-car for a week.

"That's a thing a man couldn't do in these days. But I was glad I was able to do it then; at least I was glad after all the danger was over. Many's the time I've thought of that little woman with the tears in her eyes and wringing her hands and pleading with me to help her have her children buried at home.

The Sleeping Corpse.

"It doesn't take a baggageman long to get used to having coffins around him. Many's the night I've slept on one without a quiver. But there was one night that I got a scare, and a bad one.

"I was alone, as usual, and the car was closed tight as a drum, for it was snowing outside and very cold.

"About ten o'clock, I stretched out on a coffin, and pretty soon was asleep. How long I slept I don't know, but I'd come out into a sort of a half doze when I heard the most awful, ghastly groan you can imagine.

"It seemed to come from right under me, and if my hair ever rose on end I guess it did then. I was too petrified to move. Any minute I expected to feel the corpse banging the boards under me trying to get out.

"I'd heard of supposed dead people in trances coming to life, and I was sure this was one of those cases. But, by thunder! if he was coming to life, I didn't want to be with him, not alone in that baggage-car. I'm not superstitious, and I've got an ordinarily good nerve, but that was too much for me.

"I managed to get enough of a grip on myself to jump up. Then I made a dive for the door, but stopped. I knew the boys would have the laugh on me, and that I wouldn't hear the last of it for a year if I ran out to them with my story, so I waited a while.

"I knew that the man couldn't get out

of that pine box even if he managed to break through the coffin, for the boards were thick and were screwed down fast. My nerve began to come back to me, and I stepped up to it and listened.

"I heard the groan again, and I made a spring for the trunk that was just behind it. Between that and the wall, wedged in tight, was an old tramp sound asleep. When nobody was looking, he had squeezed his way into the car.

Meeting a Maniac.

"That brings back to me another night when there was a man behind the trunks, and a good deal more dangerous one than that tramp. We had a party of very rich passengers aboard who had just returned from Europe, and they had a lot of swell-looking trunks with 'em.

"There must have been a good many very costly things inside of 'em, and there were no end of thieves in those days who were looking for just such trunks. Baggage-charmers, these men were called. They made a lot of trouble for the railroads.

"About midnight, we were running through a very lonely country of thick woods. Outside, it was as black as your hat. No moon, no stars, just the dark line of trees was all that was in sight. I was fussing around with the baggage, looking it over and studying the pasters on the trunks from Europe. Some funny foreign label caught my eye, and I stooped quickly over to one side to look at it. Just as I stooped—*bang!* A big piece of timber had shot past my head, grazed my arm, and splintered on the floor.

"I turned around in a flash. Not five feet away from me was a regular giant with as bad a face as I ever saw. He was just raising his club for another whack at me, and if he had ever landed, it would have been the last I'd ever have seen of this world.

"Turn Me Loose!"

"I jumped back and pulled out my revolver. I always traveled armed in those days, and so did the rest of the baggage-agents, for a man never knew just what was going to happen on a night run. I



"SHE DIDN'T WANT HER CHILDREN BURIED AMONG STRANGERS."

had him covered before he could make a move, and then I backed away to a trunk and kept the gun on him for at least half an hour, till we got to the next town.

"All the way, he was begging and pleading for me to turn him loose, and telling me about his wife and children who'd die of starvation if he went to prison. But I said: 'You didn't think about my wife and children when you tried to brain me, and I guess I won't think about yours.'

"Not that I've ever had children, or a wife either, but neither had he, as it turned out. We turned him over to the police when we ran into the station, and they were glad to get him, for he had a record.

"Those baggage-charmers got away with goods worth a good many thousands of dollars. Their favorite scheme was to steal passengers' checks and claim their trunks at the other end.

"One day there were two girls on the train, and two baggage thieves got into conversation with them. They induced the girls to let them carry their checks, and when I saw what was going on, I stepped up and said: 'Ladies, those men you are with are thieves.'

"It didn't take a minute for those lads

to disappear, but they had the girls' checks with 'em. We blocked their game by wiring on to the other end. Those checks never were presented, but we arranged it so that the girls got their trunks.

The Baggage-Charmers.

"One gang used to break into the freight-cars, and when they reached a favorable spot on the line they would throw off whatever they wanted. In Binghamton they had two women confederates, who ran a store for the sale of the stolen goods. They made a barrel of money before Detective Brown, who was famous on the Erie at that time, rounded them all up and sent them to prison.

"I used to meet a good many famous men in those old days. I remember Charles Dickens once took a look in at the baggage-car. He traveled with a lot of baggage, too. Herbert Spencer was another Englishman I met. I knew Henry Ward Beecher well. He used to like nothing better than riding in the baggage-car.

"But it was long before my baggage-car days that I began life on the railroad. In 1848, I left the farm in Sussex County, New Jersey, where I was born, and

started in on the Erie as a bridge-builder. I was at that about a year, and then I turned to car-repairing. In 1852 they made me station-agent at Bergen, New Jersey, and that is where I spent two of the most interesting years of my life. Bergen was the terminal for all the cattle-trains, and I used to meet many of the biggest cattlemen of the country.

A Human Bank.

"I had to collect the money for their freight, and that was the hardest part of the work. In those two years I took in more than \$2,000,000, and almost all of it was in money. I didn't often take checks; it was too risky. I took a check for \$5,000 once, even though I was suspicious of it at the time. I hurried over

to our assistant treasurer with it, and told him to get it into the New York Bank the very first thing in the morning. I was afraid the man would get his cattle away, and that the check would turn out to be worthless.

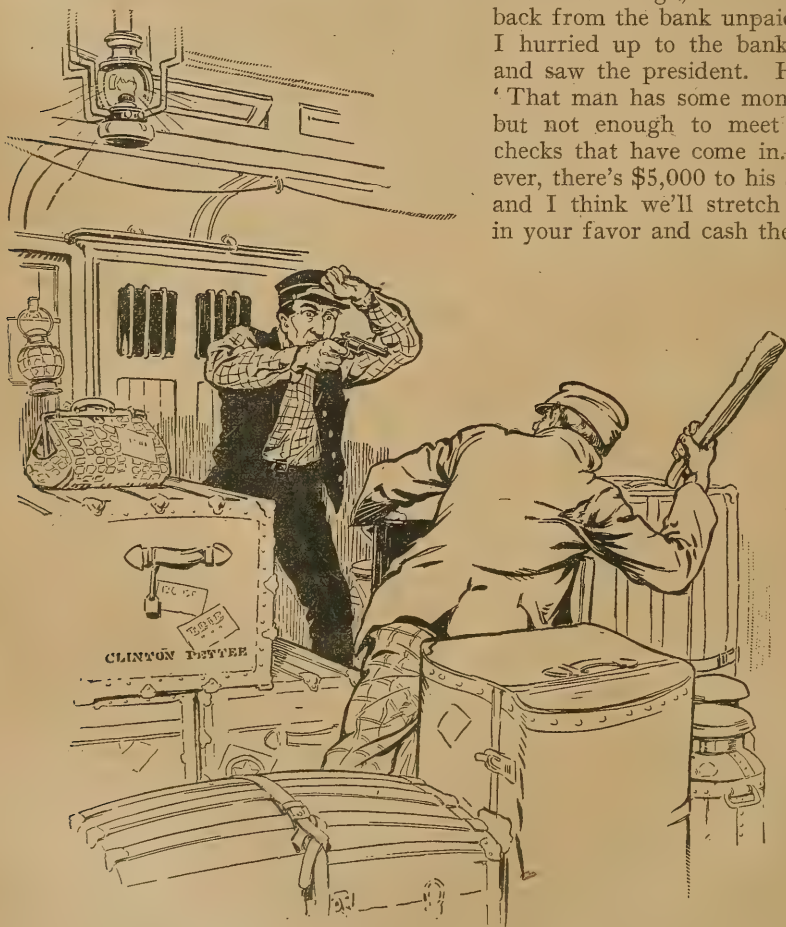
"The next day I was sent up to Twenty-Third Street to settle with a man whose hogs had been lost overboard, and I didn't get back to the assistant treasurer until evening.

"Did you present that check?' I said.

"He jumped up about two feet. He had forgotten all about it.

"Well,' I said, 'your forgetfulness has cost the road just five thousand dollars, if there's anything in my suspicions,' for I had already learned that the man had got his cattle away and had sold 'em in the market.

"Sure enough, the check came back from the bank unpaid. Then I hurried up to the bank myself and saw the president. He said: 'That man has some money here, but not enough to meet all the checks that have come in. However, there's \$5,000 to his account, and I think we'll stretch a point in your favor and cash the check.'



"I HAD HIM COVERED BEFORE HE COULD MAKE A MOVE."

"But I went out of that bank swearing I'd never take another check from a cattleman.

"That job at Bergen was the most worrisome one I ever had. There were all kinds of money in circulation. It was before the days when the Federal government stood behind a bank's greenbacks. There was a lot of counterfeit money, too. The man who preceded me as station-agent there had been stuck with \$600 in worthless currency; and, no matter how careful, I couldn't help taking in a little bad money now and then.

"Sometimes I would take in \$30,000 in a day, and I could have gone three or four days without turning in a cent and the road wouldn't have said a word. If I had chosen to be dishonest, I could have got away with \$75,000 very easily. Often I used to go to the hotel where I lived and spend the night with thousands of dollars in my coat-pocket.

"One particularly busy day, a gang of thieves hung around the station watching me. I knew some of them by reputation, and I knew they were men who would stop at nothing. When evening came, I had \$18,000 in my clothes, and there was a lonely mile between the station and my hotel. I was alone, and the thieves were hovering around pretty close. I expected any minute that they would come for me,

and I think they were getting ready when I heard the Cincinnati Express coming down the track.

"I ran out, flagged it, and jumped aboard before the thieves could make up their minds what to do.

"But the job was too risky for me. I quit in 1854, and went to Owego to take charge of the car-repairers, and later of the wrecking-crew.

"When the Civil War broke out, with a lot of other railroad men I went to the front with the Eighty-Second New York Volunteers. We were at Antietam, and at Gettysburg we were in the left center, where none but the veterans were placed.

"We were with the men who withstood Pickett's famous charge. Only eighty-two of the three hundred and eighty-four men in our regiment came out alive.

"After the war I came back to the Erie as baggage-agent. That was in 1865. At first I ran between New York and Buffalo, then between New York and Dunkirk, and, later, between New York and Salamanca. It was most all night-work, and I was glad of it. The nights suit me better than the days.

"Well, I'm here at last in this little room, and all the others are dead. Sometimes I wish I'd married and settled down, and had some children around me. But I guess I was always too busy for that."

WATER-POWER IN EUROPE.

Their Figures Small Compared with Our Estimates, But They Know What They Have.

AT this time, when engineers are just beginning to awake to the possibilities of power provided for them by a prodigal nature by the simple law that causes water to run down-hill, statistics of water-power are of peculiar interest. In no country in the world has nature been so generous in this matter as in our own land.

The vast resources of the country in this field have been only approximately estimated, but even our scant knowledge of them runs into more "horse-power" figures than the mind can grasp. In Europe, however, whether because of the comparative smallness of the task, or because of their further develop-

ment along lines of conservation, the water-power available is pretty accurately tabulated.

According to Herr Koehn, says the *Electrical Engineer*, of London, England, the available hydraulic power of Europe is distributed as follows: Austria, 6,460,000 horse-power; France, 5,857,000; Germany, 1,425,900; Great Britain, 965,000; Italy, 5,500,000; Norway, 7,500,000; Sweden, 6,750,000; Switzerland, 1,500,000. Russia and the Balkan States, which are among the districts left out of the above list, also possess great possibilities which are as yet unknown and consequently undeveloped.



The Railroad Man's Brain Teasers.

Also Some Headache Cure in the Form of Solutions to Previous Problems.

THE engine-whistle puzzle we published in the October number reminded R. De S. B., of Roseburg, Oregon, of a good one.

There are four queries in it. To how many of them can you give the right answer?

Smith, who is a good jumper, is braking on a freight-train running thirty miles an hour, or forty-four feet a second. He stands upon a flat car, and for exercise leaps vertically into the air, his feet leaving the car-deck for, say, one second. Does the car slide from under him while he is in the air, or does he alight on the spot from which he "took off?"

- 1—If the latter, why?
- 2—If the former, how much behind the "take off" does he alight?
- 3—Does the speed of the train make any difference?
- 4—Would it make any difference if Smith performed his stunt in the aisle of a closed passenger-coach?

The answer to this puzzle will appear in our April issue.

Answers to Previous Brain Teasers.

The puzzles that we have been publishing from time to time during the past four or five months have been attracting so much attention that we have decided to publish the answers to them. In as many cases as possible we are using the solutions given by the propounders of the puzzles, but in some cases the replies are sent in by our readers.

To the problem in the October number there were many lengthy





scientific solutions, but the gist of the thing is briefly expressed by the reader who claims that ten seconds are lost by sound-waves "packing up" in approaching and "stretching out" in receding. In no case does the listener hear the true tone of the whistle.

The answer to Mr. J. R. Conway's puzzles, given in the November number, are as follows: No. 1—Engines move on table with noses together. Turn table one-half. East-bound engine backs off table, and caboose of east-bound train is drawn on. West-bound engine moving over to the other side of the table. Turn table one-half turn. West-bound engine and east-bound caboose move off table. East-bound engine and west-bound caboose move on. Turn table one-half turn. East-bound engine moves off table and east-bound caboose is pushed on table, west-bound caboose moving over to the other side. Turn table one-half turn. Run engines back, couple up, and proceed.

The answer to problem 2 of Mr. Conway's is: No. 1 meets fourteen No. 2's.

In the December number there were three puzzles. The answer to No. 1 is: If the wheels are on the rail and rotate as a rolling body, the upper portion moves faster than the part which touches the rail. Any point in the driver will describe a cycloid curve as the driver rolls on a plane surface. If the drivers are rotated without touching the rail, all parts of the periphery will move around their axes with the same velocity.

The propounder of No. 2 gives as the solution that the link will stand the strain of two engines of equal power, pulling it in opposite directions, each to the limit of the link's capacity.

The answer to the first problem in the January number is:

The man rode four miles and walked one mile.

The answer to No. 1 in the February number is:

The spot on the driver does not travel any farther than the spot on the pony truck-wheel.

Answer to No. 2: The drivers made 5,992 revolutions in ten miles.

Answer to No. 3: The conductor had fifteen cars. Eight cars, which is one-half and half a car over of the total, he put on track 8. Four cars, which is one-half and half a car over the remainder, he put on track 7. Two cars, which is one half and half a car over of the remainder, he put on track 5. One car he put on track 4.



THE DAUGHTER OF THE IDOL.

BY JOHN MACK STONE.

Ruth Turns a Good Trick, but
Welch Turns a Better One.

SYNOPSIS OF PREVIOUS CHAPTERS.

ROLAND BURKE is a young boy sight-seeing in San Francisco during a visit to his uncle, Richard Engle, a famous explorer. While standing on the dock he is alarmed by a crowd of struggling men rushing down the street, evidently pursued by the police, and in his astonishment is hustled into the boat for which they are making. One of the men, who is struggling with the others, is kidnaped onto a vessel, and Roland, though unobserved, is also unable to escape. The ship puts out, defying the forts. On the boat he is discovered by Ruth Holland, who also appears to be there against her will, and who seems quite familiar with Richard Engle, though there is some misunderstanding between them. In her cabin Ruth is annoyed by a man named Welch, who seems to have some power among the cutthroats. Engle interposes.

Captain Hawson interferes against the persecution of Engle by Welch, and Welch shows his power by deposing the captain and making him a prisoner. The captain joins forces with Engle, the boy, and Miss Holland. They attempt to recover the ship.

They are captured again, but the captain manages to communicate with a United States cruiser by means of a wireless apparatus in a secret alcove in his cabin. He then puzzles the mutineers by hiding Miss Holland in the alcove.

During various attempts to capture them on the part of Welch and attempts to get possession of the ship by the captain, they near the island.

CHAPTER XIX.

We Reach the Island.

NOT a man stood on the forward deck. Many of the crew were aft, however, huddled at the head of the companionway, Welch and Uncle Dick and the spokesman in the midst of them.

"They'll not harm your uncle, Roland," the captain told me. "He is doomed to die a certain sort of death for having stolen the great aitu, and it is as much as the lives of these men are worth not to deliver him to the island safe and sound in body. But we want to try to get him with us, so we can put up a fight when the island is reached. Every hour we delay them increases our chances of rescue, for every hour the cruiser is rushing toward the island at top speed."

"What can we do?" Ruth asked, drying her eyes.

"If nothing else, we can wait for the night, and make an attempt to rescue him," Captain Hawson replied.

It was past noon then. With the exception that all the men remained aft, there was nothing about the ship to denote anything unusual. She continued plowing her way through the sea, making good time.

Now and then Welch appeared on deck aft to issue orders. He was almost on the point of collapse. The spokesman was the real skipper of the steamer.

Uncle Dick was taken below, and, we supposed, placed in a cabin under heavy guard. The afternoon passed slowly, but finally the sun neared the horizon.

We had not been molested, and had molested no one. Ruth spoke of Uncle Dick continually, anxious to have him rescued before we reached the island. She

made no secret of her love for him. The tropical night came quickly, as tropical nights always do, but it was bright moonlight, and we could see easily every square foot of space on the forward deck. There was little danger of the men creeping up on us unawares.

The hours passed, and still we huddled together up near the bowsprit. No one came near us, but we knew that from aft there were keen eyes watching carefully to see that we did not make an attempt at leaving our place of security.

"We can never rescue him," Ruth Holland said a hundred times.

"Not in this bright moonlight," the captain replied. "It would be folly to make the attempt. We should get separated, and would then be entirely at their mercy."

"Are we going to give him up to death without making an attempt to save him?" she asked.

"There is always a chance to make an attempt," the captain said. "If not to-night, then in the morning. We can perhaps save him even after the island is reached. When they start to take him from the ship there will be a chance."

The morning broke bright and clear, and away to starboard was an island outlined against the sky.

"That is the island," the captain said. I saw Ruth shudder, perhaps at thought of what she had already witnessed there. The men swarmed to the deck and watched the distant land. Some of them were chanting, all jabbering to each other in their peculiar tongue.

Welch was on deck early, two of the men supporting him. While we watched, the crew carried bolts of cloth from below, and began decorating the ship.

Great golden streamers were thrown from the rigging and hung over the sides. Gigantic devices emblematic of the great *aitu* were fastened in conspicuous places. An awning was spread aft, and three large chairs fastened to the deck beneath it, and a carpet of gold cloth spread from the chairs to the side of the ship.

"We could see the land plainly now; could see a tiny harbor directly before us. The steamer's siren began screeching, and on shore a great column of smoke shot into the air.

Ruth was staring at the land as one dazed. I was wondering what the future held in store for us. Captain Hawson had his eyes upon the deck, watching everything that was done. He was waiting for a chance to attempt a rescue of Uncle Dick.

When we entered the mouth of the harbor a fleet of small boats put out from the shore and made their way swiftly toward us, their occupants cheering and waving their arms. The town was of white huts against a background of tropical green, and in the center was a building larger than the rest.

"That is their temple," Ruth said to me. "It is a temple of horrors."

The steamer's siren was still screeching. Anchor was dropped a short distance from the shore, and the crew, although remaining aft, crowded to the rail and answered the cheers of those in the small boats.

Then a barge, gaily decorated, put out from the shore, and the small boats made way for it as it slowly approached the steamer. In it were men dressed in golden robes.

"The high priest, and the others from the temple," Ruth said.

The greetings were profuse as the barge reached the steamer's side and the priests came on deck. They walked majestically across the golden carpet to the chairs beneath the awning, and while three of them sat down in the chairs, the others grouped themselves behind them.

The one in the center, whom Ruth had designated as the high priest, said something to one of the others, and after a time Welch was led up from below, where he had gone when the barge set out from the shore. He, too, was dressed in a golden robe, and was still supported by two of the men. Although the conversation from this time was carried on in the language of the islanders, I received the gist of it from Captain Hawson and Uncle Dick, who understood it perfectly. The wind carried their words to us.

"You have succeeded, noble one?" the high priest demanded.

"The great god *aitu*, whom we all worship, has been regained for his people," Welch replied.

The other priests began a chant, and

when it had been ended the high priest spoke again.

"And the man who defiled the god and the temple, what of him?"

"We have him in our custody."

"And the woman decreed to become your wife?"

"She is also aboard ship."

"Where is the ship's commander. We must thank him for aiding in this great work."

Welch tottered and would have fallen had not the men held him up.

"What is your malady, noble one?" the high priest asked.

"Most high priest of the temple," Welch said, "I am suffering from a gunshot wound. When we were a few days from the land where the *aitu* was found, I scented treachery.

"The commander of this ship was listening to the words of the man doomed to death for stealing the *aitu*. He was about to allow the doomed one to escape, and for such an act was to receive much money.

"I overheard their conversation, and rebuked the commander of the ship. He attempted to thwart me. I was obliged to take charge of the vessel and to make her commander a prisoner.

"He then began a warfare. Many of our men have been shot by the captain and the others. Time after time we outwitted them, and time after time they outwitted us."

"But you have conquered in the end?"

"The man Engle is below, a prisoner in a cabin. The captain, the woman, and a boy who smuggled aboard, are entrenched forward, and will have to be dislodged. The boy is under sentence, for he has touched the *aitu*!"

"He has touched the *aitu*?" the priest thundered.

"It was impossible to prevent it, worthy master. But he shall pay with his life."

"Aye, he shall that!" the high priest answered. "You have done well, noble one, and honors await you. But the woman—what of her?"

"She began the betrothal ceremony and would not finish it."

"Then she, too, must die."

"She has another chance under the law."

"Yes, one more chance."

"What are your commands, worthy master?" Welch asked.

"You are sorely wounded. You must be taken ashore with all honor, and receive medical attention. The *aitu* must be returned to the temple with all ceremonies. The condemned ones must be taken there for judgment. I have spoken."

The high priest arose, the others grouped themselves behind him, and with the spokesman and Welch leading the way they went below, to the *aitu*. Soon we heard them chanting, and after a time the priests came on deck again, carrying the great *aitu* with much difficulty.

It took half an hour to lower it into the barge, for none could touch it except the priests. Then the barge started for the shore, and the people in the small boats and on the beach screamed in applause, while weird music drifted to us across the water of the harbor.

We saw the barge landed, saw the crowd driven back, saw the great *aitu* taken ashore and placed on a pedestal there, with priests to guard it. Then half a dozen barges put out toward the ship again, filled with armed men.

"They are coming to take us," the captain said.

When the barges reached the ship, half of them were unloaded, and the fanatics swarmed to the deck aft and stood there waiting for orders. The high priest sat in the chair beneath the awning again. Uncle Dick was brought up from below and stood before him.

"Defiler of the temple—" the high priest began.

"I defiled no temple!" said Uncle Dick. "I did not touch your *aitu*! Look nearer your throne for the one who despoiled you!"

"Silence!" the high priest cried. "These things are to be decided anew before final judgment is passed."

I bent over to the captain.

"Shoot their high priest," I said, "and in the excitement Uncle Dick may be able to reach us."

"Shoot their high priest and we are dead people in a minute!" Ruth said quickly. "There is no way to rescue him now. Perhaps—on the shore—"

She stopped speaking and we looked aft again. Uncle Dick was taken over

the side and placed in one of the barges, and it went some distance from the ship and remained there, a boat-load of armed men guarding it.

"Seize the others!" we heard the high priest command.

I thought I saw a smile on Welch's pale face as he looked toward us and then went to the side and was lowered into another barge.

"I wish I dared put another bullet in him!" Captain Hawson exclaimed.

"Are they coming for us?" I asked.

"Yes," he answered; "and they'll get us, too. There is no hope of escaping them. They will not harm us, for it is against the law. They will rush upon us, and make us prisoners and bind us. We may be able to kill a few, but it will make no difference. They are fanatics, cowardly enough at times, but frenzied demons when their high priest has his eyes upon them."

"Give me one of the revolvers," Ruth said.

"You need not fire at them," the captain replied.

"I do not wish to fire upon them," she said. "I want the weapon. There may come a time when death will be welcome."

We made no reply, and the captain handed her one of his revolvers. She hid it away beneath her dress. Then we filled our two remaining weapons.

We were none too soon, for they rushed us immediately, and we stood up to defend our position better, sending a hail of lead down into the midst of them. Man after man fell, but the others came on, screeching and screaming like wild beings, not a weapon in their hands, for at the high priest's command they had left their weapons behind.

We fought until our revolvers were empty, and then they swarmed upon us from front and rear, and seized us, and bound our arms. The captain fought with all his strength, but it availed him nothing.

I could not fight after my revolver was empty, because my wounded arm prevented it. As for Ruth, they treated her tenderly and with awe; and when we were secure they led her down to the deck first, in all honor, took me second, and then forced the captain to follow us. We were led before the high priest.

I felt his cold, gray eyes upon me, saw him look at Ruth and at Captain Hawson, his face growing sterner.

"I like people who have the courage to fight," he said; "but there is only one end for those who fight against the great *aitu* and its priests!"

CHAPTER XX.

How Ruth Saved Us.

IN time we reached the shore, each of us in a separate barge closely guarded by a score of armed men. Then the procession was formed, while we were hedged in by rows of fanatics, who approached within twenty feet of us and there stopped, as though afraid we might contaminate them if they came nearer.

At the head was the high priest, the other priests behind him, the great *aitu* carried on a raised platform borne on men's shoulders.

Then followed a squad of men, and then Welch, reclining in a litter, his face pale, so weak that he could scarcely raise his head to respond to the plaudits of the mob, for they did applaud him as a god.

Ruth followed, armed men before her and behind her, dressed in her golden robes, her hands bound behind her back. She walked with her head held down, and her face was pale, too.

Then came Uncle Dick, guarded most heavily of all; and when the people saw him their faces grew dark, and they uttered loud cries of rage. I followed Uncle Dick.

They seemed surprised to see me, and I thought many of their faces expressed pity. The captain came behind me, still wrestling with his guards. There was a lot of fight left in the captain, and he seemed determined to cause the fanatics all the trouble he could before being hurried to death.

We went up the broad avenue that led through the heart of the village and to the temple. In the open space before the temple there was another crowd of screeching people. As we approached the temple the priests began their chant again, and the crowd parted and made way for them.

Straight into the temple we went, and into a great room with a high dome. The

walls were covered with peculiar devices, and there were candles everywhere. At one end was a great throne with draperies of gold on every side of it; and while we watched, the *aitu* was carried forward and placed in its old place on the throne.

The guards ranged themselves against the walls, and the people crowded in behind through the doors, as many as could find place. And then, while we stood in the open space in the center of the room before the *aitu*, the religious ceremony began, and endured for about three hours. It was the most weird thing I have ever seen.

We were so exhausted that we could scarcely stand when it was concluded, and I marveled at the people, who had stood silently through it all, and who even now did not appear anxious to go.

I soon found why—we were to be tried for our lives! The high priest addressed the others, then turned toward us.

"Richard Engle," he said, "step forward!"

Uncle Dick went up and stood before him.

"You are now returned to the temple you desecrated," the high priest said. "It is decreed by our laws that he who touches the great *aitu*, unless he be a priest of the temple, dies. You were once condemned for that offense.

"While awaiting execution, you managed to make your escape from the temple; it was through your commands that our city was looted, that things sacred to us were stolen and removed, and that the great *aitu* was taken by soiled hands from his throne to a foreign land.

"For this offense, the law says, you are to die the most terrible of all deaths. What have you to say, Richard Engle, before the great *aitu* commands your execution?"

Uncle Dick faced him bravely.

"Only this," he replied; "that I touched the *aitu* on my other visit here through the treachery of a man; that I never took the *aitu* from its throne nor had it removed from this island; that I respect your religion and all other religions, and would desecrate no temple, whether it be one of Christianity or idolatry."

"You deny your guilt?" the priest demanded.

"I declare that I am innocent of the theft of the *aitu*!" said Uncle Dick.

"You were carried away in the ship which carried away the god, so I am told."

"By whom?"

"By a priest of the temple."

"Welch?"

"He was so called among people of your kind before he became one of us."

"Suppose I declare that he knows more concerning the theft of your *aitu* than do I?"

"Such a thing is beyond belief," the high priest declared. "You will gain nothing by trying to throw your guilt on the shoulders of another."

"I have spoken the truth. I am done," said Uncle Dick.

The priest addressed the *aitu*, then faced Uncle Dick again.

"You die at rise of sun," he said. "You die the most terrible of deaths. I, too, have spoken, and am done."

The guards led Uncle Dick back to us, and the priest then called for Captain Hawson.

"You engaged in an enterprise for money," the priest said. "You promised to carry out our orders faithfully. Now it appears that you attempted to thwart us by rescuing the man you held as prisoner, because he offered you more money than you were to receive from us for an opposite service. And now, what have you to say?"

"I have this to say," the captain cried. "The man who told you that lied! And I have this to say, too—that I started on this trip with the best intentions in the world, but that the scoundrel you have taken into your priesthood convinced me he was dealing double, and I turned against him!

"When I start a thing, I generally finish it! I stand by my friends here, even if it costs me my life; and you can bet I'll fight every minute of the time between now and when I become a corpse!

"And before I die I'll tell you what I think of this blamed island and its people, and its freak of an idol, and its foolish laws. All I want before I die is a chance to get this man Welch by the throat and choke the life out of him!"

"He is a wounded man; he says you shot him," the priest answered. "You

are, therefore, also accused of offering violence to a priest of the *aitu*."

"I did shoot him, and my only regret is that the bullet didn't strike him in a vital spot," the captain said. "And as far as offering violence to a priest is concerned, let me tell you this: I am a seafaring man, and I have no liking for pirates."

"When this man Welch cooked up his story and took command of my ship against my wish, he became a pirate. I had the right to shoot, and to shoot to kill. The law gives me the right."

"Not the law we know," the high priest said. "You offered violence to a priest—you have admitted it!"

"Then I'll offer more violence to another priest!" the captain cried.

Before the guards could stop him he had the high priest by the throat and was choking the life out of him. Then the guards rushed in, and I beheld Captain Hawson in the midst of them, his great arms swinging, his fists landing like sledges, and men scattered all about him.

But it could not last long. Soon they had him conquered. The high priest arose and straightened his robes, and rubbed his sore neck. There was menace in his eyes and in his voice.

"There is no need for further consideration of your case," he said. "You, too, die at rise of sun!"

Then the guards forced the captain back against the wall. The high priest beckoned me, and I stepped forward.

"You are but a boy," he said, not unkindly, "yet the *aitu* is angry at you. You touched the idol unknowingly, perhaps; but, nevertheless, the *aitu* will not be sacred again until your life has paid the forfeit for its desecration. I am empowered to order for you a death more merciful, but the end is the same. You, too, die at rise of sun!"

I was taken back by the guards, without having had a chance to speak a word. Then he led Ruth forward.

"You have been selected as a daughter of the temple," the priest said to her. "You are to become the bride of one of our order. I am told that aboard ship, before the great *aitu*, you began the ceremony of betrothal, and did not complete it. Such an act means death, unless you agree to continue the ceremony now and to atone by fasting for your reluctance

before. What have you to say? Speak at once!"

Ruth raised her pretty head and looked him straight in the eyes.

"When I visited your land before," she said, "I learned your laws and your religion. I am surprised to find that the high priest of the *aitu* himself wishes to desecrate his temple."

"Woman! What do you mean?" the priest cried.

"You ask why I did not complete a ceremony once started. Did not you yourself, a few minutes ago, say the *aitu* would not be sacred again until those who had desecrated it had paid the penalty with their lives? Then, the *aitu* was not sacred aboard ship, for those who had desecrated it still lived. Did I do right, or wrong, to refuse to conclude a ceremony before an *aitu* not sacred—to refuse to make a mockery of your sacred laws?"

"What is this?" the priest cried.

"Had I concluded the ceremony before the *aitu* when it was not sacred, before you had purified it again, it would have been a desecration, would it not? Would you want for a daughter of the temple a woman who had desecrated the temple's *aitu*?"

"Woman, you speak with wisdom," the priest said. "You have honored the temple by your forethought."

He turned to one of the other priests, and gave some orders, and the priest went out. Presently he returned, leading the way for those who bore the litter holding Welch. The high priest told Welch all that had transpired. Welch's face wore the evil smile again.

"It is a trick," he said, "but one which will not serve. The *aitu* is sacred in part, because it has been placed on its throne."

"That is true!" the high priest said.

"And all that remains to make it sacred wholly is the execution of the two men and the boy!"

"That, too, is true!"

"Then, if they are executed at rise of sun to-morrow, the *aitu* will be sacred again. The ceremony of betrothal may be held immediately after the execution."

"So be it!" the high priest ordered.

"You see," Welch said to Ruth, "this trick will not serve you, either. It only makes more sure the death of your friends."

"Lead the prisoners to the room of the condemned to await execution," the high priest commanded. "Take the woman in all state to an apartment, let women wait upon her, see that she has every comfort. She has wisdom beyond her years."

Ruth Holland stepped toward him again.

"Stop!" she commanded. "Would you again desecrate the aitu?"

"What does the daughter mean now?" the high priest asked, with fear in his eyes.

"A person may not be condemned except before the sacred aitu, and cannot be executed unless so condemned."

"That is true."

"Then, these men cannot die."

"Why?" the high priest demanded.

"They have not been condemned before a sacred aitu."

"I do not understand."

"The aitu is not sacred until they are executed; and they cannot be executed unless condemned before the sacred aitu. How can you, then, condemn them? Don't you see? Your aitu will never be sacred again."

"Never be sacred again!" the priest cried.

"It can never be," Ruth said. "It cannot be sacred unless these men die, and they cannot die because there is no sacred aitu before which to condemn them!"

Some of the priests began to screech at one another; others to explain the meaning of the scene to the people. Welch half arose from the litter to expostulate, but fell back, weak and senseless. They carried him out to give him attention.

The high priest demanded silence.

"Daughter," he said, "your words trouble me. It is necessary that I consult the laws regarding this peculiar state of affairs. I may require your wisdom in the council-chamber, and if such is the case you will be sent for. Meanwhile, the prisoners are not condemned, and must be treated with courtesy. Guards, remove them to apartments; guard them well, but see well to their comfort, also."

In the excitement of the moment, as they were preparing to move us, Ruth Holland passed within a few feet of where we three were standing.

"Perhaps I have gained a little time," she said.

Her words held meaning for none but we three who knew of the cruiser's coming. Her eyes held meaning for none save Uncle Dick.

CHAPTER XXI.

Captured by the Mob.

IN one corner of the temple was a high tower, and in a room at the top of the tower Uncle Dick, Captain Hawson, and myself were placed as soon as the crowd had been driven from the temple by the priests and the guards.

The people crowded the open space before the temple, refusing to go to their homes. They were talking angrily among themselves.

"There may be trouble," the captain said. "They have got it into their heads that the aitu can never be sacred again, that they are doomed to eternal unrest, and that we are in some manner responsible for the state of affairs."

"It makes little difference to us," my uncle replied. "Only one of two things can happen—either we'll die, or the cruiser will arrive in time to rescue us. If we die, it matters little whether it be at the hands of the priests or the people."

The afternoon passed swiftly. In the evening food was carried to us by the guard. The men looked at us angrily as they passed it to us, and muttered to each other, but neither the captain nor Uncle Dick could catch the meaning of their words.

The night came—a beautiful tropical night, with the bright moon shining through the palms and making the white huts of the fanatics look like silver palaces.

And with the night came trouble.

In the square before the temple the natives had been gathering from all parts of the island since early afternoon. Now several thousand were grouped there in the bright moonlight, jabbering to each other, screaming and screeching. Once or twice the priests went out and addressed them, trying to get them to disperse; but to no avail.

As the hours passed, their frenzy increased, their shouts became deafening. From the tower window we watched them, wondering how it would end. Somewhere

in the temple below us the high priest and his assistants were trying to straighten out the tangle Ruth had caused by her reasoning.

The people, evidently, awaited only the verdict of the priests. If it was against us, all would be well as far as the people were concerned. If it was reported that the *aitu* could never be sacred again, our lives would not be worth much if we fell into the hands of that mob of frenzied fanatics.

It was midnight, perhaps, when a man in the golden robe of priesthood left the temple and stood high upon the pedestal of a monument in the square, with the crowd surging about him. He waved his hand for silence, then turned half-way toward the temple, that the crowd could see him and his words be better heard.

We saw him, too. It was Welch.

"He's going to make an attempt to make them disperse," the captain said. "Now, we'll see how much influence he has with this crowd."

"They are almost worshipping him to-night because he returned the *aitu* to them," said Uncle Dick. "They'll probably do anything he tells them to do."

"Listen!" the captain demanded.

The great crowd had become silent, and Welch began to speak in the native tongue. Captain Hawson translated for me.

"Children of the *aitu*," he said, "I come before you now in an attempt to show what love I have for you in my heart. Some time since I made the journey to a foreign land, and after suffering hardships untold I rescued from the hands of unbelievers the great *aitu*, your ruler and mine. For the *aitu* is indeed the ruler, and none of its priests. The great *aitu* has been returned, and now sits upon his throne. He is as sacred now as ever."

The people began cheering like mad beings, but again he silenced them with a wave of his hand.

"I say it is as sacred now as ever. Without a sacred *aitu*, my children, we are all lost. Because a woman with a smooth tongue has twisted words, shall we believe the great *aitu* is not sacred? She has done this thing to confound your priests, and to save from death the men who have desecrated the temple and defiled the god.

"The high priest listens to her words. He is almost ready to announce to you that the *aitu* is not sacred; that these men must go free, and can never be punished for their desecration. I say to you, my children, that I have just left the council-chamber because the high priest and his assistants are trying to take from you your one great belief. What can we do without a sacred *aitu*?"

"I take my life in my hands to tell you this, for the other priests will be angry at my words. I have done much for you, my children. Will you do something for me?"

"Will you stand behind me and say that these men must die, that the *aitu* is sacred, and that no woman's word can make it otherwise? Will you go with me into the temple and stop the desecration that the high priest and his brethren would work?"

He would have said more, but they stopped him. Shrieks and cries rang out—a bedlam of voices.

"To the temple! To the temple!" they cried. "Kill the unbelievers! We will have a new high priest!"

They surged around the monument upon which he stood, trying to kiss the hem of his robe, praising him in their cries. Some of them tried to lift him upon their shoulders, but he stopped them, and raised his hand for silence again.

"I am weak because of my wound," he told them. "Lead the way into the temple, my children. Work your own will with the priests and the prisoners. Spare the woman, for it is my wish."

"Spare the woman!" they cried to each other.

"Let some of you stand by me, for there are those who seek my life," he said. "Remember the unbelievers in the tower must die, and your untruthful priests must die."

"When that work is done, gather here again in quiet and we will praise the *aitu*."

"Give us the word, master—give us the word!" they cried.

"Into the temple!" Welch screamed. "I have given you the word!"

Then the bedlam broke out again, and the thousands surged toward the temple entrance, their cries filling the night.

"It is a matter of a short time now," Uncle Dick said. "There is no escape

from the tower, even if we could get out of the apartment."

Captain Hawson ran to the door and tried it, but found it fastened securely. He called to the guard, but there was no response. It was evident that the guard had grown frightened and had fled, leaving us to face death.

While the captain and Uncle Dick worked at the door, trying to force it open, I ran back to the window. The cries of the mob were deafening. They were crowding into the temple, as many as possible. Welch still stood upon the pedestal, half a hundred men surrounding him.

Had any of us in the tower possessed a revolver, it is certain that he would not have lived long.

I thought of the weapon Ruth had hidden in her dress before we left the ship, and wished it were in my possession.

We could hear the screeching inside the temple now. Above the din rose the voice of the high priest, shrill and clear. He was trying to stop them. And then the voice was lost in a tempest of cries, and we heard it no more. But in a few minutes we saw through the window that the high priest and all his brethren had been carried out as prisoners, and were being held before Welch, under strong guard.

"What shall we do with them, master?" the crowd demanded.

"As you will!" Welch cried.

Again the tempests of shrieks greeted his speech, and the priests were hurried away in the midst of the crowd and taken toward the water-front.

But the great majority remained in the temple, and in the square before it, and their shrieks and cries came nearer. They were searching all the rooms for us, searching them one by one, evidently determined that no chance of escape should be given us.

Again we heard their loud cries, and this time Ruth was taken from the temple and carried before Welch.

"Spare the woman!" he cried. "Hold her here before me, and let her not be harmed!"

And so some score of them guarded her, but treated her with deep courtesy, and the others rejoined the mob inside the temple, and renewed the search for us. And soon they had reached the tower and

were coming up. We looked at each other hopelessly.

We had no weapons. It would be but the work of half a minute for that mob to enter the apartment and seize us, the work of a couple of minutes to carry us down and place us before Welch, and then—

They were outside in the corridor now, breaking in the doors. We huddled together near the window, waiting.

Then our door came in with a great crash, and the fanatics poured into the room, uttering their weird cries when they saw us. Captain Hawson sprang into the midst of them, striking right and left with his great fists. But his resistance was useless, and it was the last expression of violence he could make.

He was seized and bound, and Uncle Dick and I were taken easily, and then they started to lead us down the corridor, down the long, winding stairs, and to the square. In a few minutes we stood before Welch, the center of a mass of screeching fanatics. Welch demanded silence, and got it.

"Desecraters of the temple," he said, "there is no room for argument in your case. Death is the only thing we can grant you. And it must be a swift death, for the great aitū demands it."

Ruth ran forward to the foot of the pedestal.

"Let me die with them," she implored.

The evil smile came into Welch's face again.

"Death is not for you," he said. "It is my wish that you live, to be my bride!"

"Let me die with them," she asked again.

"No; you must live. The betrothal ceremony takes place as soon as these men have met death."

"A woman cannot go into a betrothal ceremony with a dead man!" she cried.

"What do you mean?" he asked.

Her hand went into her robe quickly, and when it came out something bright flashed in the moonlight—the revolver she had hidden away before we left the ship.

"Don't, Ruth!" Uncle Dick screamed. He knew what would happen if she fired upon Welch—the people would tear her to pieces.

But she did not heed his cry.

"I mean this," she said, in answer to Welch's question.

And then she fired!

CHAPTER XXII.

I Am Chosen to Live.

FOR an instant the wild clamor of the mob ceased. The smoke drifted to one side, and we saw Welch standing against the base of the monument, alive.

Ruth raised the revolver again, the gleam of determination in her eyes, but before she could fire the shrieks of the angry mob rang out, and the guards rushed in and seized her and tore the weapon from her grasp.

Then they stood back, holding her by the arms, and looked up at Welch. He raised his hand, and the mob was still.

"The woman is crazed by the excitement and by her long journey on the sea," he said. "She did not realize what she was doing. You see her bullet did not wound me. The great *aitu* is merciful to me, and guards me, because I have declared him sacred."

He could turn even such an event as this, then, to his own credit.

"The great *aitu* has saved the master! The *aitu* has saved the new high priest!" they cried.

Again they surged toward the base of the monument, praising the hypocrite before them. Again he waved them back.

"You must think no ill of the woman," he said. "She did not know what she was doing. She is possessed, and will be until these defilers of the *aitu* are slain. She must be placed in her apartment, and allowed to rest. See that it is done. As for these others—it is within half an hour of rise of sun, and they must die then. Take them to the execution-ground!"

The guards closed in upon us again, and again Ruth Holland ran forward and faced Welch.

"Wait!" she cried.

"What does the daughter of the *aitu* wish now?" he asked.

"Is it true that I am to become the bride of a priest and a daughter of the *aitu*?" she asked.

"That is true. It has been decreed."

"Then I demand the rights which are mine under the law," she said.

"What rights, daughter?"

"The law says that a woman about to become a daughter of the *aitu* may spare the life of one condemned man. Is that not so?"

Welch could not deny it. It was a law well known to all the people, for the ceremony was always observed at betrothal. He did not dare risk the anger of the populace by refusing.

"You have spoken truly, daughter," he replied.

"Then I demand the life of one of these prisoners."

"According to the law you may save the life of one, but the one you save must be exiled from the island after having had his cheek branded."

"Such is the law," she said.

"Then I grant you your rights, daughter," he answered. "One shall be saved. He shall have his cheek branded, and shall be sent away from the island on the ship which brought us here. It is for you to say, daughter, which one shall be saved."

She turned and looked toward us, then hesitated. Welch was looking at Uncle Dick, and his face still wore the evil smile. He thought that, of course, she would save Uncle Dick.

And I knew as I watched his face what he was thinking—that Uncle Dick might sail away from the island alive in the ship, but would never reach a foreign port alive. There were too many ready to do Welch's bidding, especially if he told them they would please the great *aitu* in so doing.

"Which one, daughter?" he demanded. "It is almost time for the execution."

"It is written in the law," Ruth said, "that it is my privilege to save the man on the ground of execution, at the last minute, when the sudden respite from death will make him praise me, and thus bless my marriage."

Welch's face clouded, but he could not deny the law.

"That is true," he said.

"I demand that right also."

"You wish to witness the execution, daughter? Are you strong enough to do so?"

"I may return from the execution-ground as soon as I have made my choice," she said.

"Then let us go to the ground of execution," Welch ordered.

The crowd began to screech again, and a procession was formed. A litter was taken forward, and Welch reclined in it and was carried ahead on men's shoulders. Then the guard formed, and we were placed in the center and urged forward.

Ruth was carried on another litter behind us. And behind her came the thousands of maddened people, cheering and chanting, uttering their weird cries. On and on we marched, half a mile or more.

After a time we reached a large clearing in the midst of the jungle. There was an altar in the center of it, draped in yellow cloth. A circle of sea-shells was around the altar at a radius of twenty feet.

The people formed in columns at the edge of the clearing, and the guard led us forward toward the altar, but outside the circle of shells they stopped. Welch's litter was carried forward and placed upon the ground, and he was helped to his feet.

Then Ruth followed, and stood close beside us. There were tears in her eyes.

Welch walked inside the circle of shells and approached the altar. He removed the golden cloth and threw it to one side. We saw a flat bed of stone, large enough for a man to lie upon. I expected to see blood upon it, for I thought the mob had executed the priests there, but there was no blood. The stone was clean.

Welch seemed to be thinking the same thing. He turned to the guards.

"What did you do with the former priests?" he demanded. "There has been no execution here for some time."

"Master," one of them said, "we dared not enter the circle of shells to execute them, for there was no loyal priest among us. The priests were made prisoners back in the village, and their guards told to bring them out after these prisoners had been executed. They should be here now."

"It is well," Welch said. "When they are brought I shall appoint priests to do the work."

He left the altar and came back to us.

"It is time for you to denote the man you wish to save, daughter," he said.

"I may speak to the men alone first?" she asked.

"Yes," he agreed, and stepped back and motioned for the guards to do the same. Ruth walked nearer us.

"I do not know what to do now," she said. "This was a trick to save all the time possible."

"It is the end," said the captain. "No one can save us now."

"At least I can save one of you," she said. "But I cannot save myself, for I shall take my own life at the first opportunity."

"Ruth!" Uncle Dick implored.

"There is no other way," she said.

"Hurry, daughter," said Welch.

"I do not know what to do," she said to us.

"Do not let me concern you. Count me out," Captain Hawson said. "I have lived my life. I am not afraid to die. Either of the others is worth more to the world than I."

"You are a brave man," Ruth said.

"It lies between Mr. Engle and Roland," the captain responded.

Ruth looked Uncle Dick in the eyes, and for a moment they stood thus, trying to read each other's thoughts. Then she looked at me, and her eyes filled.

"The boy," my uncle whispered to her. She stepped nearer him.

"Death must claim me soon," she said.

"Perhaps, if you love me, it is better we leave the world together."

"I love you enough to die with you," my uncle said.

"Then you believe in me at last?"

"Yes," he whispered.

"I can die happy now," she said, "just when I could live most happily."

She took another step toward him, and in an instant they were in each other's arms, and their lips met. Welch uttered a cry, and staggered toward them. The guards made no move, not knowing what to do.

But before Welch reached them they had separated, and Ruth had staggered away from him.

"Which one, daughter?" Welch demanded. "Is it to be this man?"

He pointed at Uncle Dick.

"No!" Ruth cried. "I save the boy, Roland!"

(To be continued.)

ON THE EDITORIAL CARPET.

Side-Talks With the Man Who Sits in the Cab of
the Magazine and Is Commonly Called an Editor.

THIS month we are bringing out of the construction shop a fine piece of rolling stock which we have been promising for some time past. It is a serial by J. Aubrey Tyson. You are quite used to seeing this designer's work on our main line, and, judging by the letters we received when we sent "The Man of Straw" and others over the track, you will be getting something that you like in "Without Lights," the present story.

We are now confronted with the most pleasant task of the month: talking about next month's lay-out. It's a peculiar thing in human nature, this thing of talking about what you are going to do.

It seems as if everybody carrying a pound of steam has to work it off or blow it off. Everybody with an ambition, or a hope, or an idea, enjoys talking about it. There's something inspiring about it.

We enjoy talking about next month's lay-out because it indicates two things—a work well done in the number we are closing and the pleasure of good work to be done in the number we are promising. We are not, however, of the kind that has to blow off steam to prevent it from blowing the boiler-tubes through the sand-dome. The pleasure we take in talking is the pleasure that men take when they have something to say that somebody else wants to hear.

Some people shoot off their exhaust for the pleasure of making a noise like a consumptive rhinoceros, regardless of the fact that their drivers are slipping four revolutions for every inch they make. They need a pusher, but they don't know it.

When you see the April number you'll realize that we are not talking without saying something. We are pulling a fine string of fiction. We shall possibly switch in a new railroad serial by a man whose work in this magazine has proved second to none in pleasing either the readers or the editors.

We don't want to be too specific about this, because there are so many exigencies in the making up of a magazine-train that when we promise you something as good as this we like to be certain that all our couplings are made and in order. It's too good to cause disappointment.

In the matter of short stories we shall probably run seven cars, and there won't be a flat car nor a flat wheel in the whole bunch. Three such names as Robert Fulkerson Hoffman, J. R. Stafford, and Augustus Wittfeld, can be trusted to carry any issue up the steepest grades you can mention, and the other stories will not put all the pull on these three either.

Besides stories by these authors there will be as well-told a story as we have run in many a day by a new author, Mr. William D. Ball. It is called "How Komo Bill Went East" at the present time; but before the fine-toothed comb is passed through it for the last time it may emerge with some other title. Anyhow, look for William D. Ball.

"Donnelly's Hunch," by H. H. Giebler is just as good in a slightly different way. It is a railroad story, and we guess we know a thing or two about railroad stories.

Then there is a story of a million dollars on exhibition. Better read up on that, so that if ever you come across a stray million dollars, either on exhibition or not, you will know it when you see it. Our True Story, "Old Dutch Cheese," is very funny.

But in spite of the fact that this is one of the best fiction numbers we have ever put out, we think the fiction will have to take second place to the special articles.

The star feature of these will be the first of a new series by R. H. Rogers, especially intended for young men who want to learn practical railroading. The first subject is the work of "The Railroad Apprentice."

Very few writers enjoy the confidence of their editors as Mr. Rogers enjoys ours. He has, to a greater degree than any man we know, the knowledge of the operating end of a railroad, combined with the ability to tell others what he knows in such a manner as will interest them and instruct them. As a railroad man of high standing he speaks with the authority which few writers, no matter how familiar with the subject, can speak.

His knowledge of his subjects is only equaled by his modest and sympathetic attitude, and this, with his able pen, forms a combination of rare effectiveness.

We regard this series by Mr. Rogers as one of the most important we have ever put on the line.

Arno Dosch will have something to say about the progress that is being made in railroad signaling, and Willard D. Eakin about the hardships of the railway mail service.

For the old-timers there will be the romantic history of that one-famous engine, the New York Central's No. 999.

J. E. Smith contributes the twenty-third observation of a country station-agent—an observer who is never tiresome. This time it is the lonely crossing watchman whom Brother Smith writes about. There are some human phases to the humblest job.

Do you know why every railroad has a trade-mark and the story behind that trade-mark? If not, you will know when you read our April number.

"Get out of town!"

SPARK-ARRESTERS.

WE have found ourselves out. On looking through the February magazine we find ourselves making a weird statement which we know will cause all good railroad men to think we ought to be drawn in little bits through the exhaust of a Mallet articulated compound—gently, of course, so as not to hurt us in any way.

In the "Recent Railroad Patents" article, questions and answers department, a reader asks if spark-arresters are in general use. By a slip in the composing room, Mr. Smith was quoted as replying that there were few spark-arresters in use.

Of course, Mr. Smith knew, and we knew, and the compositor knew, and the proof-reader knew, and probably the news-dealer knew that every locomotive in New York State, and most likely in nearly every State in the Union must, to conform with the law, be fitted with a spark-arrester. By some slip the word "patented" was left out, and the answer should have indicated that few "patented spark-arresters" are in use.

It seems like a very small thing, but the leaving out of a word resulted in a perfectly sensible answer being converted into one that made us feel as if we had been arresting sparks and other things all night.

AMONG THE SINGERS.

WE have three inquiries for songs. One gentleman, writing from Fruitvale, California, says one or two very nice things about us, then asks us if we can give him

the words of the song, "From the Cradle to the Grave."

Another gentleman, living at O'Brien, Florida, sends, with a subscription to the magazine, the following request: "Please ask some violinist of the railroad army to send me the song of 'Sherum.'"

Another reader from Anniston, Alabama, quotes the first line of a song, "Yonder comes old F. & B., the fastest on the line," and asks us if we can supply the rest of the song.

Will gentlemen with tuneful natures and long memories see if they can help us and our friends in these matters.

PERPETUAL MOTION CLAIMS.

AS we anticipated, we have received quite a number of letters discussing our recent articles on perpetual motion. We called the theory "The Greatest of Delusions," and much as we sympathize with the people who have worked patiently for many years on this problem, we fear that we have as yet found no reason to change our opinion.

All the letters we have received that have made any claim, have stated merely that the writer has solved the problem. Of course it could hardly be expected that such a badly stated claim would convince us of its own accuracy.

Therefore, if we seem skeptical, and still persist in calling this search "The Greatest of Delusions," we trust that our correspondents will realize that while we have every sympathy with their ambitions, a statement is not a proof, and that we cannot give space to letters making such large claims on such small grounds.

Frankly, we do not believe that the secret of perpetual motion has been discovered. We are in grave doubt whether such a secret exists or not. Perpetual motion would be a contradiction of all present known natural laws, of which the key-note is, action and reaction.

If we thought that this statement would discourage any of our friends from following what we feel to be a will-o'-the-wisp, we should make it gladly, but as it is, we make it rather sadly, for we fear that people will still continue to hunt for this elusive Jack-o'-lantern and will still be disappointed.

One reader suggests that some millionaire become interested in his invention to the extent of ten thousand dollars. He says that a millionaire would not feel this any more than he himself would feel the cost of a postage-stamp.

We fear that our friend is confronted

with another delusion even as hard to overcome as that of perpetual motion. Ten thousand dollars is a large sum of money to any but the most profligate and extravagant.

Millionaires are usually millionaires because they have accurately gaged the real value of money. Their attitude toward ten thousand dollars is probably one of much greater respect than that of the irresponsible people who let the figures roll off their tongues with even greater ease than they ask for a postage-stamp.



THE FACE ON THE BARROOM FLOOR.

TO the many readers of "THE RAILROAD MAN'S MAGAZINE," who in response to W. H. K., of Oakland, California, in our January issue, sent us the words of this famous poem, we extend our sincere thanks. We are very glad to give it a place in the cluster of classics which the readers of the Carpet find so popular. Open her up:

THE FACE ON THE BARROOM FLOOR.

By H. Antoine d'Arcy.

'Twas a balmy summer evening, and a goodly crowd was there,
Which wellnigh filled Joe's barroom on the corner of the square;
And as songs and witty stories came through the open door,
A vagabond crept slowly in and posed upon the floor.

"Where did it come from?" some one said.
"The wind has blown it in."
"What does it want?" another cried. "Some whisky, rum, or gin?"
"Here, Toby, sick him, if your stomach's equal to the work.
I wouldn't touch him with a fork; he's as filthy as a Turk."

This badinage the poor wretch took with stoical good grace;
In fact, he smiled as though he thought he'd struck the proper place.
"Come, boys, I know there's kindly hearts among so good a crowd.
To be in such good company would make a deacon proud.

"Give me a drink—that's what I want—I'm out of funds, you know.
When I had cash to treat the gang, this hand was never slow.
What? You laugh as though you thought this pocket never held a sou;
I once was fixed as well, my boys, as any one of you.

"There, thanks; that's braced me nicely;
God bless you one and all;
Next time I pass this good saloon, I'll make another call.
Give you a song? No, I can't do that, my singing days are past;
My voice is cracked, my throat's worn out, and my lungs are going fast.

"Say, give me another whisky and I'll tell you what I'll do—
I'll tell you a funny story, and a fact, I promise, too.
That I was ever a decent man not one of you would think;
But I was, some four or five years back.
Say, give me another drink!

"Fill her up, Joe, I want to put some life into my frame—
Such little drinks to a bum like me, are miserably tame;
Five fingers—there, that's the scheme—and corking whisky, too;
Well, here's luck, boys; and landlord, my best regards to you.

"You've treated me pretty kindly, and I'd like to tell you how
I came to be the dirty sot you see before you now.
As I told you, once I was a man, with muscle, frame, and health,
And but for a blunder, ought to have made considerable wealth.

"I was a painter—not one that daubed on bricks and wood—
But an artist, and, for my age, was rated pretty good.
I worked hard at my canvas, and was bidding fair to rise,
For gradually I saw the star of fame before my eyes.

"I made a picture, perhaps you've seen, 'tis called the 'Chase of Fame,'
It brought me fifteen hundred pounds, and added to my name.
And then I met a woman—now comes the funny part—
With eyes that petrified my brain, and sunk into my heart.

"Why don't you laugh? 'Tis funny that the vagabond you see
Could ever love a woman, and expect her love for me;
But 'twas so, and for a month or two her smiles were freely given,
And—when her loving lips touched mine it carried me to heaven.

"Did you ever see a woman for whom your soul you'd give,
With a form like the Milo Venus, too beautiful to live;
With eyes that would beat the Kohinoor, and a wealth of chestnut hair?
If so, 'twas she, for there never was another half so fair.

"I was working on a portrait, one afternoon in May,
Of a fair-haired boy, a friend of mine, who
lived across the way,
And Madeline admired it, and, much to my
surprise,
Said that she'd like to know the man that
had such dreamy eyes.

"It didn't take long to know him, and before
the month had flown,
My friend had stolen my darling, and I was
left alone;
And ere a year of misery had passed above
my head,
The jewel I had treasured so had tarnished
and was dead.

"That's why I took to drink, boys. Why, I
never saw you smile,
I thought you'd be amused, and laughing all
the while.
Why, what's the matter, friend? There's a
teardrop in your eye;
Come, laugh like me; 'tis only babes and
women that should cry.

"Say, boys, if you give me just another
whisky I'll be glad,
And I'll draw right here a picture of the face
that drove me mad.
Give me a piece of chalk with which you
mark the baseball score—
You shall see the lovely Madeline upon the
barroom floor."

Another drink, and, with chalk in hand, the
vagabond began
To sketch a face that well might buy the
soul of any man.
Then, as he placed another lock upon the
shapely head,
With a fearful shriek, he leaped and fell
across the picture—dead.

A NEWSPAPER RUNAWAY.

AS a further illustration of what one of
our readers wrote to us about some
time ago, *apropos* of the wonderful feats
performed on railroads—according to the
newspapers—we would like to call attention
to the following.

A Sunday newspaper, desirous of running
a good railroad story, hit upon an incident
on the Lehigh Valley, and it hit upon it
with great effect. Yardmaster Thomas Nor-
mille and Engineer Bill Burke of Sayre,
Pennsylvania, were the heroes of the feat
and they had every athlete, aeroplanist, and
Japanese tumbler up in the air and gasping
for breath.

An engine, No. 359, by some means got
under way and went out of the yards at
Sayre, without control. Then Mr. Nor-

mille began to use wild-west oratory and per-
form marvels of daring and agility—accord-
ing to the newspaper.

To quote one or two of the realistic sen-
tences:

"Tom's vocabulary was limited, but his
resources—where the rolling stock of the
Lehigh was concerned—were practically
boundless. Tom flew back to the station
and phoned to the train despatcher to stop
the fast freight at Milan, if not already too
late.

"It was, but Tom had not waited even a
second for a reply. He rounded up the
crew of one of the switch-engines, who were
taking their night lunch-hour on the plat-
form, and said to the engineer, Bill Burke,
as they leaped aboard:

"We must catch 346 before she meets
the fast freight coming this way lickety-split,
or there'll be something doing, I can tell
you!"

"We'll catch her or bust," answered
Burke, as he jerked the lever, "we've got to
catch her!"

Then began the chase. We wish we could
take our readers with us on that chase. We
are quite sure they never went on one any-
thing like it.

At last, having got both engines going at
the speed requisite for the performance of a
great, brave feat, fifty miles an hour—no feat
is ever performed in any newspaper at less
than fifty miles an hour, and it ought to
be sixty—Engineer Burke, as his engine
came alongside, "*mounted the tender, and
carefully calculating his flying leap, sprang
and landed in the tender of the runaway.*"

The "story" continues:

"That was an anxious moment for Nor-
mille, in which he watched eagerly to note
whether the feat had really succeeded. The
jumper might have fallen and be lying un-
conscious in the tender. If so, a disaster
meant his death also. Presently—it was only
the work of a few seconds—there was a
grunt at the levers of the runaway.

"The reverse had been applied by the
rescuing hand. The madcap 346 came to a
stop only a few feet away from JB-5, whose
headlight glared upon her rear as if in re-
proach and indignation."

Then follows a touching dialogue between
the yardmaster and the engineer, and the
newspaper account closes with the comment:
"But it was Normille's generalship all the
same."

When we saw this fearful and wonder-
ful story we were curious. Whenever we
are curious we have to satisfy ourselves or
smash a side-rod. We quote a letter from
the general manager of the company satis-
fying our curiosity:

"It appears that the throttle on this engine had been left open while making repairs, after the fire had been dumped, and after firing it up, and it gained sufficient steam to move, it started backward, the reverse-lever being in the back motion.

"The switches were all set so that the engine moved back onto the west-bound track, east of Packer Avenue bridge, and at the time it left the switches on to the west-bound track, was moving about twelve or fifteen miles per hour.

"Our yardmaster, Mr. Normile, stood near the switches, east of Packer Avenue bridge, and noticed the engine moving backward, and at once came to the conclusion that there was no man in charge. One of the switch-engines in charge of Engineman Burke was switching in the east end of the Auburn division yard under Packer Avenue bridge, and Normile at once ran over, cut the engine off, and started east on the east-bound track.

"They overtook engine 359 before it rounded the curve west of Athens, and as the speed of the engine was reduced to about ten miles per hour, Engineman Burke stepped from the side of his engine on to the 359 while the engines were alongside of each other, moving.

"He at once stopped the engine and ran same back to Sayre. The engine was caught and brought back to Sayre before JB-5 arrived, the men on JB-5 not knowing anything of the occurrence until it was talked of later."

THANKS FOR BOTH.

MR. THOMAS H. DICKSON, JR., of St. Paul, Minnesota, took the trouble to clip the little poem, "The Right Track," from the St. Paul *Pioneer-Press*, and appended it to a letter to us, in which he says: "As one who for some years engaged in railroad service, I would express my commendation and appreciation of your effort to make a thoroughly worth-while magazine for the railroad boys." Thanks! And we gladly print the poem:

THE RIGHT TRACK.

ARE you upon the right track, my friend?

Are you running upon the right rail?

The way is long and the pace is swift,

And you want to be sure of the trail.

Don't open the throttle and give her steam,

Through the day so bright and night so black,

Unless you are sure your way is secure,

Unless you're upon the right track.

The track that is right is the track that's clear,

Be sure it is the one you choose;

No head-on collision to throw you off,

And no signal-lights to confuse.

You will have up-grade, and down-grade,
my friend,

Through ledges and tunnels so black;

But you can just fly like a bird a-sky,

If you are upon the right track.

The rails of life they are right and left,

And they lead you to right and wrong;

They are up and down, they are in and out,

And the run is hard and long.

The station, Reward, is the terminal

For the engine that never turns back;

There is joy for you when your train is due.

If you've made it upon the right track.

FROM A TRAVELING SALESMAN.

MR. ALBERT L. TERSTEGGE, a traveling salesman of Richmond, Kentucky, sends us the following letter, which we publish with the most becoming modesty known to us, which is to turn as red as the crown sheet of a mogul. At the same time we thank Mr. Terstegge for his kindness and his sentiment:

I have read THE RAILROAD MAN'S MAGAZINE from the very first, and consider it one of the best magazines on the market. There is always lots of information in each number—information that a person may, and, very likely will, have use for if he has to travel to any great extent, as I do.

Then, again, the stories, while fiction, seem to me so much more possible—that is, more likely to happen in actual life—than the stories in other magazines. Even in these stories you find out something you didn't know before, as well as in the regular instructive articles.

A salesman is out on the road most of the time, and, unlike the railroader, rarely has a home. In his work he needs cheer, brotherhood, and good-fellowship; and, if any man don't possess more of these qualities after reading THE RAILROAD MAN'S MAGAZINE, he "sure ain't much of a man."

It puts you right next to the boys who have to do with your tourist book, and to whom you are very often tempted to quote the Bible when you miss a connection or something. But, after reading THE RAILROAD MAN'S MAGAZINE, you begin to see that maybe the trainmen don't deserve "cussin'" any more than *you think* you deserved the last calling down you got from the house.

Keep the good work up.

IMITATING HOBOES.

IT is, of course, quite impossible for any magazine to be responsible for all the impressions and ideas conveyed between its covers. Different minds interpret them in

different ways, and the editor who could know exactly what effect every line would have upon every reader would be one of those perfect beings who do not belong on this earth.

At the same time, a letter we have just received from a reader is responsible for a feeling within us that we ought to utter a grave warning.

He says: "I am a railroad man and have known this fellow Welch, or 'Penn,' as he calls himself, for a long time. His poetry and other matters he gives out cause many boys to leave their homes.

"My brother, after reading his poem in *THE RAILROAD MAN'S MAGAZINE*, issue of January, 1910, remarked, 'I will try and do just as he does it.' And, sure enough, the kid was practising cutting conductor punch-marks an hour afterward, making him liable to arrest for forgery."

We don't often get solemn in this department, but we would like to say a few things to boys whose ambition may lead them in the direction of imitating hoboes.

There is more in life than a picturesque and romantic atmosphere. Remember that behind the romance is the dirt, the wasted opportunity, the wasted life, and the dissatisfaction that you are quite unable to understand at this time.

The sly or shrewd tricks of men whose sole pride is how much and how often they can beat a railroad or a citizen, are quite unworthy of anybody's imitation. What the reasons of these men are, whether they are real or imaginary, why they are at war with all that is legal and orderly and self-respecting, we do not know.

Some of them doubtless feel that they have bitter cause to be at war with everybody. Probably they are mistaken.

But one thing is certain, that no boy with a good home—or even a bad one—with a clean mind, strong body, and clear intelligence, will find anything in their conduct or means of living that he ought to imitate. He is far and away above them in all the better and happier things of life, and if he imitates them, he must of necessity go downward and not upward to do so.

We do not mean to imply by all this that the ordinary bright, happy boy should despise the unfortunate man who is, or feels himself to be, forced to these tactics; but there is not the slightest reason in this world why any boy should, of his own deliberate free will, become what these men have degenerated into, through misfortune of one kind or another, and through a bitterness which only years can understand.

Perhaps our readers will retort by asking us why we print stories and poems repre-

senting the tramp in more or less attractive guise, if our real attitude to him is what we have just stated. Our answer is that the tramp has become a necessary feature in railroad literature. He has become a part of the romance of the railroad. His picturesqueness there is no possibility of denying, any more than one can deny the picturesqueness of certain rovers of the sea, but at the same time, no sensible boy is anxious to merely make "copy" for picturesque literature.

THE SUNNY SOUTH.

WE don't like to say "I told you so"—at least we say we don't—but we cannot help once more calling the attention of our readers to a matter on which we have previously held forth with what we call wisdom.

On various occasions we have advised our friends against seeking employment in the Southern republics and even in Mexico. We are reminded of this by reading the following letter which we take from the *Locomotive Firemen and Enginemen's Magazine*.

"Should any more firemen ask you about the ways and means of this country, just ask them if they are making their board. If the answer is no, then tell them that they are one hundred per cent better off there than here, anyway.

"Here is a little dope, and if any of 'em are equal to the game, tell 'em to come on. Last week one fellow got off the track twenty-one times in sixty-two kilometers. We make bets as to whether we are on or off the track. I was in the worst wreck of the season so far—two rail lengths of track washed away. It was all of an undermine nature—couldn't tell it till things began to pile up. It has rained for nearly two months, and as I am on the road every night, you may know that I am just like a drowned rat. At times you can't see ten feet ahead of the engine with an electric light, it rains so heavy. Will not endeavor to give you all risks assumed by men on the engine here, but I assure you that any of 'em that think they're up against grief in the railroad line in the U. S. A. don't know the meaning of the word in comparison with this neck o' the woods.

"I've drank water here that was too 'dirty to bathe in. Was on one four (24 hours) days' trip and got seven hours sleep, and not any eating to amount to anything. The pay is nothing; 12 hours per day, \$4.48 Mexican, 48 cents per hour overtime; engineers, \$8 Mexican money, with same hours; 75 cents overtime; 1 hour and 35 minutes constitutes one hour; in fact, 1 hour and 35 minutes for every hour."



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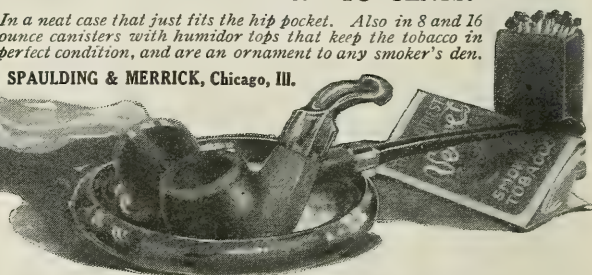
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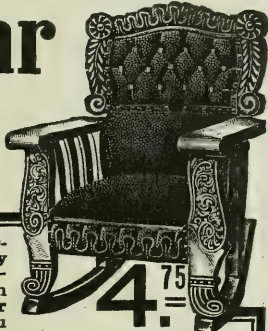
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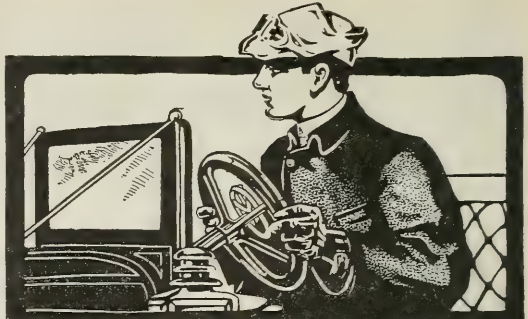
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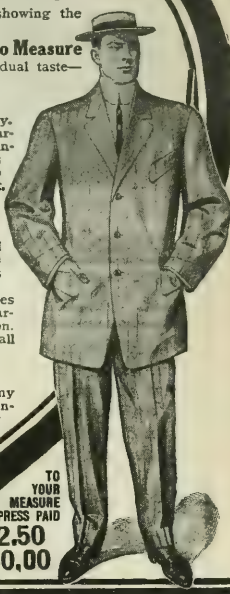
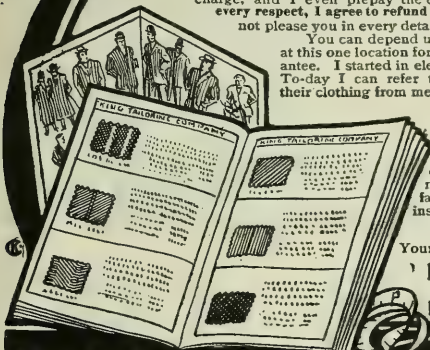
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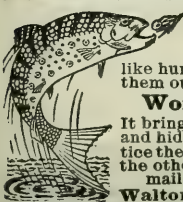
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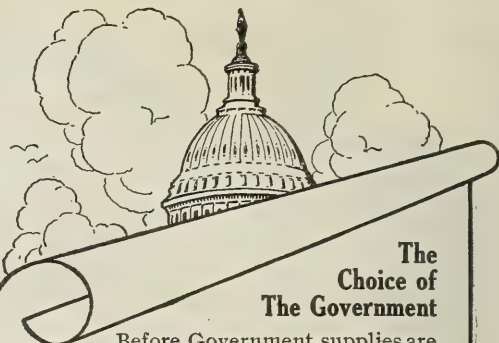
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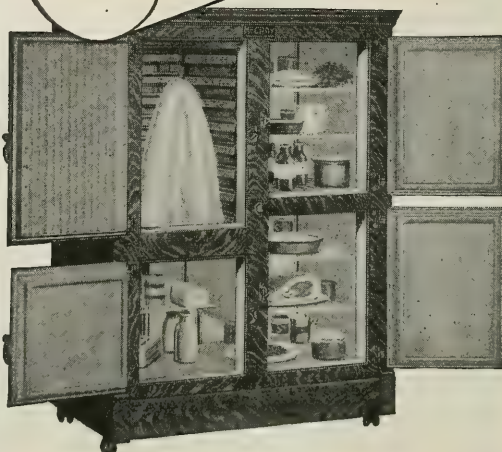
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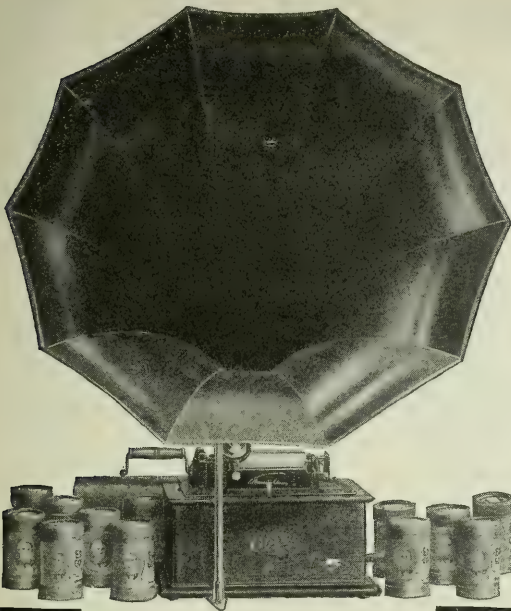
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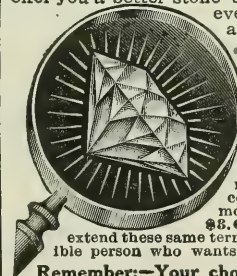
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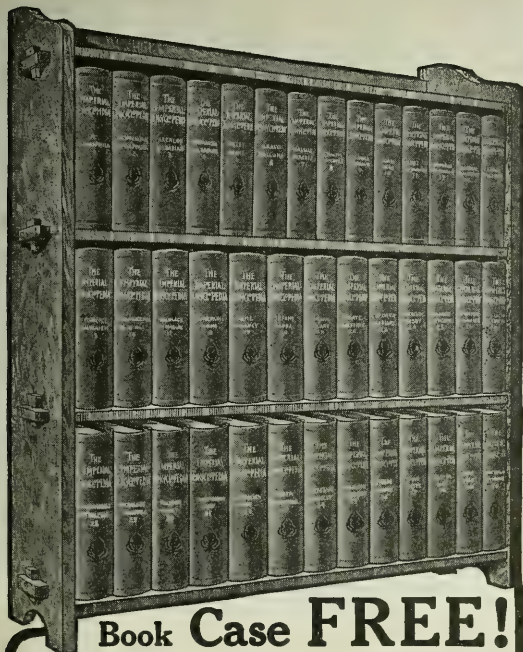
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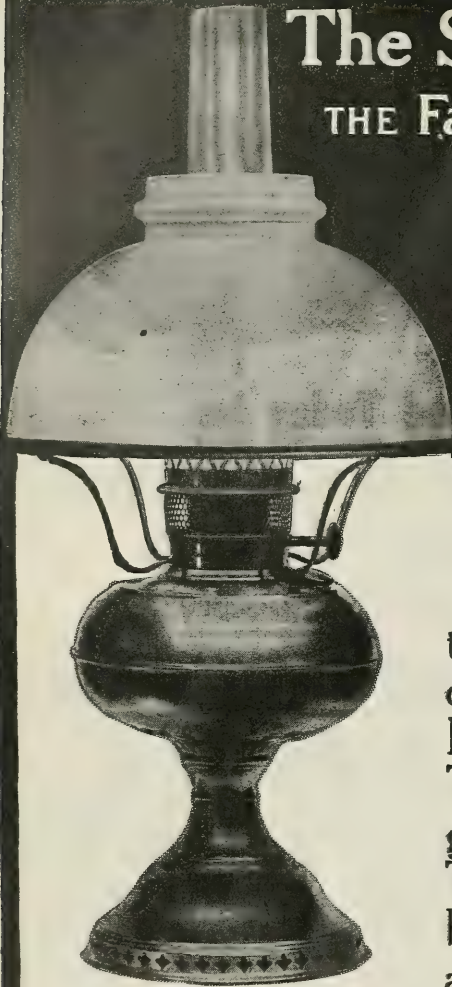
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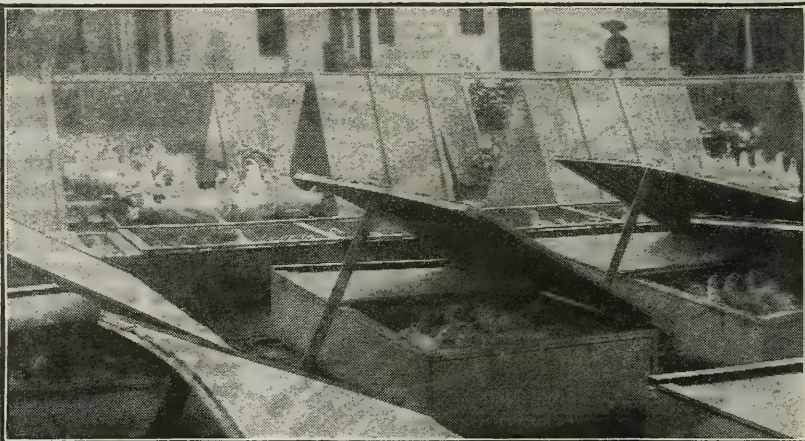
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Yours truly, R. S. LaRue.

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Mr. E. R. Philo, Elmira, N. Y.

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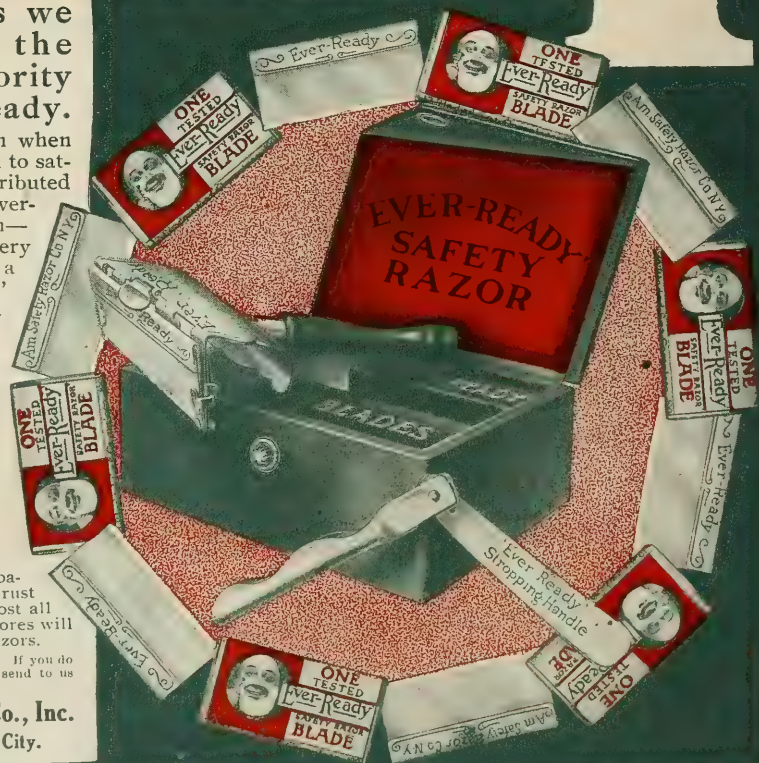
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THE RAILROAD MAN'S MAGAZINE

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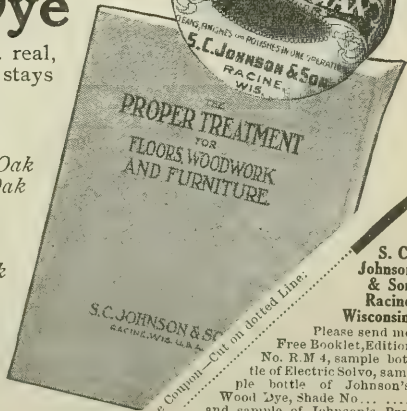
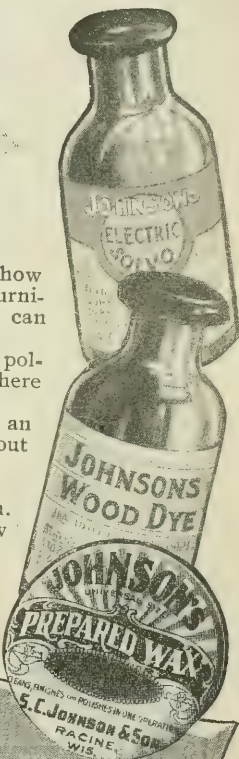
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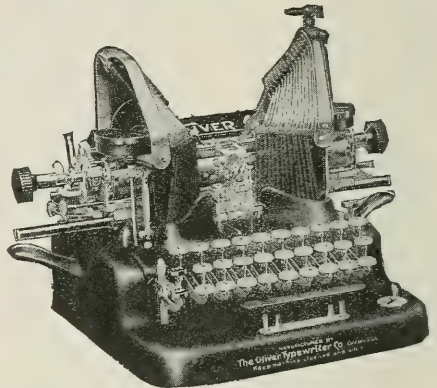
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THE RAILROAD MAN'S MAGAZINE

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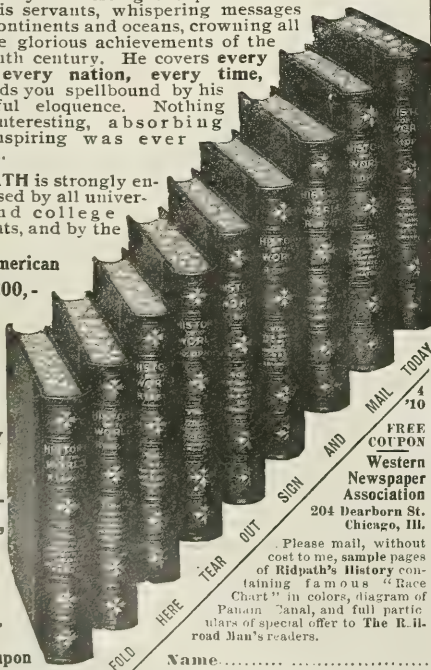
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THE RAILROAD MAN'S MAGAZINE

Vol. XI.

APRIL, 1910.

No. 3.

Rough-Riders of the Rail.

BY GILSON WILLETS.

THE extremes to which some men go—and women, too, as Mr. Willets informs us in this article—to get a free ride on a train, surpass even the deeds of daring of the early Indian fighters. That they take their lives in their hands, that they are driven to hunger, desperation, and even insanity, in their desire to get from one place to another, seems to prove that the bo—as he is commonly called—does not annex himself to a brake-beam or hide in a box car just for the fun of the thing.

That Mr. Willets gathered the following stories on one of his journeys around the country for THE RAILROAD MAN'S MAGAZINE, attests their authenticity. Whether or not the bo is frequently driven to his vagabond life by existing conditions is not for us to decide, but that he is a factor in human life to be reckoned with, we know. He doesn't care much to talk. But when he does, he usually has something to say.

How the Engine Hostler Got in Jail—The Jungling Lumber-Jack—An Inhuman Mother—Los Angeles Officials as Boes—"Red-White-and-Blue Bessie"—The Killing of Ferrer, and Others.

MY cab dashed up to the Southern Pacific Station at San Antonio, Texas, just as the conductor of the west-bound Sunset Express shouted "Board!"

It was necessary that I should cover the long haul in that particular train in order to be on time in joining a hunting-party at El Paso. So I thrust four bits into a porter's hand, and saw him toss my trunk containing my hunting togs into a baggage express-car.

Trainmen told me that that baggage

express-car was empty save for my trunk, and that for some reason it was being sent to El Paso, dead.

Reaching El Paso, I went to the Sheldon Hotel. As I registered, the clerk said: "Railroad detective looking for you. Here he is now."

"Know you've been robbed?" blurted the detective. "No? Your trunk was broken open on the train and its contents rifled. If you don't mind, I'll be present as a witness while you overhaul what is left of your wardrobe." And he went with me to my room.

My corduroys, hunting-boots, poncho, cartridge-belt—in fact, all the chief articles of my kit were missing—even my tobacco. “I’ll have to buy a new outfit,” I said, after I had signed a claim on the Espee, “for I’m obliged to start out with Bill Greene to-morrow for a hunt in Mexico.”

“Don’t buy much,” replied the detective, “because by the time you return I’ll have the stolen stuff, as well as the stealer. It’s a hobo job, and the rangers (meaning the famous Texas Rangers under Captain McDonald) will get that tramp within a few days.”

Caught in the Sage-Brush.

I was gone three weeks on the hunt. Reaching El Paso once more, I was confronted by that same railroad detective.

“McDonald’s men got him,” he greeted me. “A free-rider? Yes, but not a professional tramp. It was his first offense—tells a plausible story—but now, if you’ll step around to court, you’ll have a chance to identify your property.”

The court was held in a small room over a store. All my togs were returned to me, even the tobacco. “Well, your Texas Rangers certainly are the most capable police I’ve encountered,” I said.

“It was simple,” replied the detective. “The man was out in the sage-brush without food or firearms. Nothing easier than to get a fugitive under such conditions. He’s around the corner—in jail.”

I asked if I might see the “amateur” hobo; and the detective accompanied me to the calaboose and introduced me to the warden, who brought out the prisoner.

He was a sorry-looking customer. It was not merely that his clothes were in tatters; it was his singularly emaciated appearance, his livid paleness, his bright, staring eyes. His skin seemed drawn tight over his bones, giving peculiar prominence to his features, especially to his nose.

Starving to Death.

“I know,” I said. “I’ve seen men in your condition before—thousands of them during the great famine in India. You have been near death from starvation.”

“Right!” he answered, in a voice woefully weak. “I’m a victim of circumstances. I’m no stew-bum—no vag. May I tell you my story from the very beginning?”

“Two months ago,” he began, “I was employed as an engine hostler by the Illinois Central Railroad at New Orleans. I earned ninety dollars a month. The doctors said I showed signs of consumption. I determined to get up to New Mexico.

“I’m a saving man. I had three months’ wages in my pocket, yet I resolved to beat my way to New Mexico like the tramps we often captured in the yards at New Orleans. That resolution led to—this,” and he pointed to the iron-barred cells.

“I told no one of my plan; and alone, in the night, I crept through the yards to a box car I had previously selected for my purpose, on a train going west.

Lured by a Trap-Door.

“I chose this particular car because it had a small trap-door, a sliding affair, in the roof. The trap was for the passing back and forth of lamps. I counted upon that trap-door to help me to get out of the car, in case some one should come along and lock the side doors.

“I slept well the first night. The stopping of the train in the morning awoke me. It was stifling hot, and I wished to let in some fresh air by sliding open one of the side doors.

“But, try as I would with all my strength, neither of the side doors would open. Some one, evidently, had locked them during the night. But, no matter! I had my trap in the roof. I would open that, just enough to let in some air—for I had closed that trap the moment I entered the car in order to minimize the chances of detection.

“Imagine my predicament when I tried to open the trap and found that it wouldn’t budge. Not till then did I recall that such trap-doors in some cars could be opened only from the outside.

“I was hungry and thirsty. Did I cry out and bang on the door? Nix! Discovery by the wrong person would mean, I supposed, arrest. I would wait a while. Probably at some station men of the right

sort, who would look the other way while I walked off, might open the door.

The Heat Unendurable.

"Sleep was then the best way to pass the time. I slept all day, till the gnawing of a famished stomach awoke me. I had been twenty-four hours without food or water. The train jolted frightfully. My bones ached. I was racked with pain from head to foot.

"To cry out now would be useless. With the train pounding along, no one could hear me. The heat became almost unendurable, and the sand of the desert was drifting in, filling my eyes and mouth.

"In agony I cried out! I realized how foolish I was to try this box-car riding. It seemed to me that my voice sounded exceedingly far away; but I was not sure on account of the noise of the train.

"After that I must have fainted. Then I must have slept a long time, for when I awoke it was again daylight, though whether morning or afternoon I knew not.

"Still, the train thundered and jolted on. Would it never stop so I could summon assistance? The third night passed. In the morning I found myself too feeble to rise to my feet. I had been three nights and two days without a bite to eat.

"The train stopped. Now I would be rescued, would be able to buy food and get water. I was cold, though I knew I must be in a hot country. I had chills—ague. Now I suffocated. My tongue was swollen, my mouth seemed to be filled with a hot potato.

"But the train was standing still. I tried to call for help, but could not utter

a sound. The best I could do was to tap on the floor with my knuckles. No one heard. Hours passed. I guess I became delirious—then unconscious.

"When I came to I lay in a hospital in San Antonio, a mere shadow of a man. They told me that the car they found me



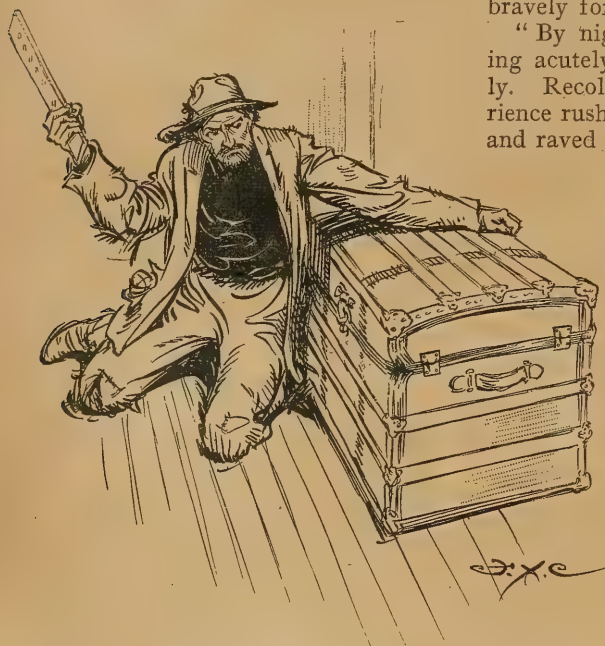
"ALONE IN THE NIGHT, I CREPT THROUGH THE YARDS TO THE BOX CAR."

in had lain unopened in the yards for two days and nights. That meant that I had been without food or water for five nights and four days!

"No wonder I was merely skin and bones! No wonder that the sight of food now nauseated me, while the sight of water drove me mad.

"But I recovered, of course. They

discharged me from the hospital. Why I was not arrested for riding in the box car I don't know. I wish they had arrested me then—it would have been better. I wouldn't be suffering here.



"MAYBE IT CONTAINED FOOD."

"Certainly, I must have been still weak in mind, though strong enough in body to walk, for I went deliberately back to the railroad yards with an insane determination to hold on to my money and ride to El Paso free.

"The Sunset Express was ready to pull out. Next to the engine was the baggage express-car, its doors slightly open. I looked in. It was empty, save for a few fish-plates. I climbed in, unobserved, and sat down in the corner farthest from the door.

The Welcome Trunk.

"Just before the train started some one pushed the door open about two feet, and shoved in a *trunk*. The train started. I heaved a sigh of relief—for the door was left open. The trunk was yours.

"On the outskirts of San Antonio the train pulled up—and a man slammed the door shut, and I heard him lock it.

"Not till then did I realize the madness of my act in again attempting to beat my way. Was I again to starve? No! I was on a passenger-train. In twenty-four hours I would be in El Paso. I resolved to have patience, to go hungry bravely for that time.

"By nightfall I found myself suffering acutely, both physically and mentally. Recollections of my previous experience rushed through my head. I yelled and raved in despair. Food was my only thought. Food I must have.

"Presently a wild idea came to me. Your trunk! Maybe it contained food. I seized one of the fish-plates, smashed the trunk open, but found no food.

"A maniac indeed I then became. With a crazy notion of ending my life, I butted my head against the side of the car.

"I knew no more till the next morning. There was the smashed-trunk staring me in the face. There were its contents scattered over the floor in my wild search for food. Now I'd surely be arrested, not only

for a vagrant, but for a common thief.

"In desperation I tried the door. Imagine my astonishment when I tell you that the door opened.

"It had not been locked. Here was light, air, liberty!

"Quickly I made my plans. We were in the sage-brush. At the first stop I would leave the train, and take with me some of the clothes from the trunk. I would array myself in those garments, bury my own, and no one would then recognize me.

"That mad plan I carried out—all except the donning your clothes and burying mine. I seemed to forget why I carried those stolen clothes. In the pockets of your hunting-coat I found tobacco and a pipe. I smoked. The tobacco gave my stomach something to work on—till the rangers found me.

"You know the rest. I'm glad they ran me down. For I was slowly starving to death in the brush. I hope, sir,

that I have convinced you that I'm no common hobo. That is all."

Before I left El Paso that "free-rider"—the name he gave was Jim Somebody-or-other—was sentenced to thirty days on the work gang.

An Army of Hoboes.

I "hit" Tacoma, Washington, in November. There I learned that a veritable army of hoboes was passing through the city on the way to warmer California. The calaboose, so railroad yardmen told me, was filled with a new set of Weary Willies each night.

"The only room we've got for 'em is so full," said the keeper at the calaboose, "that I can't even crowd in myself to use the phone. To-morrow morning we'll escort the tramps to the Northern Pacific freight yards and order 'em to 'hit the grit' and put Tacoma far behind. Yet to-morrow night the calaboose will be full up with hoboes again.

"There's one man in there doesn't belong there," he continued. "It's that tall chap with the red whiskers. He's a lumber-jack—not a real hobo, you know—yet he and his kind, when they're 'jungling,' live a regular hobo life. The railroad police happened to round up that chap along with the rest."

I determined to be a part of that escort the next morning, and get acquainted with the tall, red-bearded lumber-jack. Before daylight the patrolmen and myself escorted some forty "stew-bums," "vags," and general wrecks to the Northern Pacific freight-trains; and while the unfeathered birds of passage scurried for means of flight, I annexed the lumber-jack and led him off to hot coffee and ham and eggs.

"The Simon-pure hoboes detest us," he said, as he tucked a fried egg in its entirety into his mouth. "They won't have nothing to do with us, 'cause we work. When we're 'jungling,' a lot of us get together, build a shack in the woods and live on the country-club plan.

Lost in a Box Car.

"I'll tell you a story you can verify, if you want to, by writing to the Missouri Pacific yardmaster, at Gurdon, Arkansas.

It's a bill of particulars of how I got lost once in a mop box car—car and all.

"Some of us lumbermen travel same as those who never work. You'll find us on freight-trains from the Atlantic to the Pacific. My home's way back in Connecticut. Some years ago, at the end of my season in a northern California camp as a swamper—which is trimming branches from trees and clearing a road through the brush—I wanted to go back East and see New Haven once more.

"I got down to San Francisco, where I heard that a fast freight of only five cars was to go through to New York in six days. That was the train for me. It happened to be a very important, an unusual train—a silk-train, worth half a million dollars. Each of the five cars was filled with a hundred thousand dollars' worth of silk.

"But I didn't get out of California before the enemy discovered me and gave me the boot. Then I worked eastward till I got into Arkansas. There I 'changed cars.' I'd had enough of trucks. I wanted a nice, comfortable place to stretch inside of a car. And I got it—a car on a mop train, half filled with boxes of canned salmon. Say, wasn't that salmon great?

A Banquet on Salmon.

"As soon as they locked me in all snug I knocked off the cover of one of the boxes, used a nail for a can-opener, and began feasting on Columbia River salmon.

"On the second day something the very queerest happened. Locked in, as I say, I was not on to the game. The car seemed to rise up in the air and shoot off sideways. Then it plumped down and stood still. Then all was silence. I just kept guessing the rest of the night and all the next day, consuming canned salmon meanwhile till I was sick of it.

"All that time, bear in mind, I heard trains passing my car, right beside me. I had not been side-tracked, for there'd been no backing, no pushing, no slamming. Had the car been lifted bodily out of the train and placed on another track? I gave it up, and ate more salmon.

"The second night, though, I heard men come up a swearing all round my car—a gang of 'em. Suddenly the car got a move on, bumpity-bump, as if they

were hauling her over the ties. In a minute, however, we rolled on smoothly, as if on the rails again.

The Yardmaster's Smile.

"In the morning the car was opened, and a man began unloading it. I hid behind the boxes. When he went away for dinner I skidooed. I found myself in Gurdon, Arkansas. More curious than I'd ever been in my life to know what kind of railroadin' I'd been subjected to, I walked up to the yardmaster's office and asked for a job, by way of getting safely into a conversation.

"The yardmaster seemed daffy about something that had happened in the yard, laughed like he was dippy, and mumbled something about a 'cock-sure conductor.' Then he turned to me and turned on the gas. And the long and short of his illumination was this:

"As that night freight, of which my car was a part, neared Gurdon, what'd that salmon diner of mine do but jump the rails and slide to the left into a ditch.

"Now, here's the freak part. As soon as my traveling restaurant cut herself out, what's the caboose right behind me do but roll forward and couple herself

automatically to the train. So much for freak railroadin'.

"Now for that part that made the yardmaster smile out loud. When that freight-train pulled into the yard at Gurdon the conductor reported all present and accounted for and went home to bed. In the wee small hours a call-boy woke the conductor and told him a car was missing from his train.

"'Go chase yourself,' said the conductor. 'Didn't I tab that car into the train? Of course she's there.'

"That'll be about all, mister, except that I expect that mop freight conductor had to set up the soda-water good and plenty for that yardmaster. What's that? Did the yardmaster give me a job? Well, now, he certainly approached me along that line; but, you see, I had the New Haven bee in my bonnet, so I just sidled away from that kind yardmaster."

An Inhuman Mother.

Here's another free-rider tale—the inhuman act of a young mother, that led to the rehabilitation of a human derelict.

At Los Angeles—in the same month of my visit to Tacoma—I saw more tramps in the railroad yards than probably could

be found in all the other railroad yards of California. Los Angeles in winter is the hobo's paradise. In the Santa Fe Railroad yard I talked to many of the arriving free-riders, and the story of one in particular has an unusual touch of pathos.

"You fond of babies?" he

said. "I am. Nearly lost my life two nights ago—for a baby.

"I was at the fag end of my journey from Kansas—nearing Los Angeles. Kicked off a freight-train, I took a seat on the steps of the rear car of the Santa



'THE SIMON-PURE HOBOES
DETEST US.'

Fe's crack train, the California Limited, hoping to ride into the City of the Angels in grand style.

"Just after we passed a place called Cucamonga—as I'm a living man—I saw a baby thrown from one of the forward cars of the train. I heard that baby's cries distinctly, for the train was not going very fast.

What Memory Did.

"In a flash I thought of my own baby, now lying in a Kansas graveyard. Thoughts of how happy I'd expected to be with my baby now ran through my mind. My wife died, you see, and our baby lived several months. I took care of him myself. Then he, too, left me.

"That discouraged me. I gave up. I drank. I lost all, pawned all, went down, took to the road, and here I am—a human derelict.

"While all that I've told you flashed through my brain, I jumped. Now, when you say a limited isn't going some, you mean faster than a freight, but not fast for a limited. When I jumped I learned how fast a limited is going when it's going slow, for I can show you a body black and blue and—just look at that swollen ankle.

"I limped, dragged myself, up the track to where the child lay in a mass of soft mud. It still lived, blubbering weakly. 'What fiend has done this awful thing?' I asked myself.

A Helping Hand.

"Would the baby live? I picked it up and petted it. And then I exclaimed, just as if some one was listening, 'I'm only a tramp! What if I take this baby to the nearest house? Maybe I'll be arrested for kidnaping. No. I must leave the baby just as I found it, and go for help.'

"Just east of the track I saw a light in a window. I made my way, painfully, toward the light—found it was in a ranch-house where lived a Mr. Mattock. I told Mr. Mattock of the baby by the track, and how it got there. He wouldn't believe at first that any one could be so inhuman as to cast a baby out of a car window from a moving train. When we reached the baby Mr. Mattock said:

"'I don't dare move that child without authority. I'll telephone Constable Ruff.'

"While Mr. Mattock was phoning I took the baby once more in my arms. I



"'I'M ONLY A TRAMP!'"

billed and cooed over it. Then, when I heard Mattock returning with the constable, I kissed that baby, laid it gently in the mud, and then slunk away into the night, like the tramp I am.

"Since reaching Los Angeles I learn that they got the fiend who tossed that six-weeks' old baby from that car window—a young woman of San Bernardino. She hoped in that way to get rid of her child. Think of it! She's under arrest. The baby lived only a few hours after I left it.

Driving Them Out.

"I believe that my experience with that baby has had the effect of arousing in me an ambition to face the music once more and work for a living. I'm glad of these bruises. They make me think of my own baby boy, and of how, maybe, I ought to work for him even though he ain't here."

Free-riders at this time were pouring into Los Angeles in such hordes on every

freight-train that certain yardmen were put on extra duty, in the way of handing the boes over to the police. Rough-riders of the rail arrived in such big bunches, indeed, that Mayor Harper and Police Commissioner Cole put their heads together and caused a sign to be placed in the railroad yards reading like this:

Hoboes, stick to your Pullmans and keep moving.

Long sentences in the chain-gang given here.

Sixty to ninety days our specialty.

Notwithstanding these warnings, free-riders arriving at Los Angeles forsook their "Pullmans" in such numbers that Sheriff Hammel was obliged to keep his shower-baths in the county jail going night and day in an effort to maintain cleanliness within his gates.

Now, among the tramps who submitted with more than usual reluctance to the sheriff's soap and water was one known as Idaho Red—a free-rider whose arrival in Los Angeles had been marked by a most amusing experience.

Idaho Red was snoozing in an empty box car, when the train pulled up at a desert water-tank. There two other free-riders climbed into Idaho's red car—one a tall, lanky man, and the other fat and very much sawed-off. The garments of the newcomers were torn and tattered and covered with dirt and mud. Their shoes were typical. Both were hatless.

"Howdy?" said Idaho Red. "Youse goin' to Los? That's a awful town jist now for us unhappies. They pinch us and parade us through the town in the chain-gang. Got a chew?"

"I'm the Governor."

All this time the tall thin man and the short fat man glared at Idaho Red with expressions of indignation, as if to say: "How dare you be so familiar?" Presently the tall man put his hand on the bare and touseled head of the short man and said:

"This is the mayor of Los Angeles. And I—I am one of the police commissioners."

"Glad to know your honors," promptly replied Idaho Red. "Permit me to introjuce me own self. I'm the Governor of California."

Just then a shack jumped into the car and said: "Dig up—every gine in here, or out you all go."

I do not mean to imply that brakemen on California trains are in the habit of making tramps dig up in return for letting them travel in peace. I merely quote the remark of one particular brakeman as I got it in relation to this specific instance.

Idaho Red dug up without a word. And the "mayor" and the "police commissioner" followed the example of the "governor."

The shack then left the three free-riders, with the tacit understanding that he would not report their presence to the con, and the tramps began an animated powwow that continued during the remainder of the journey to Los Angeles, the tall man and the short man plying Idaho Red with dozens of questions concerning the view-point of free-riders with regard to their treatment by the authorities in the City of the Angels.

Arriving in the Los Angeles yards, Idaho Red handed his new friends this advice: "Now, beat it, for if youse linger, youse will get pinched sure."

Make a Get-away.

The "mayor" and the "police commissioner" made their get-away successfully; but, sad to relate, the "Governor of California," less spry than the others, got pinched before he left the yards, and was taken to Sheriff Hammel's jail and subjected to the indignities of suds and aqua.

Coming from the shower-bath with a look of reproach suggestive of the cat that has just emerged from a rain-barrel, Idaho Red proceeded to relate the incident of his meeting with the short fat man and the tall thin man in the box car.

When told that the short fat man was really and truly the mayor of Los Angeles, and that the tall lanky man was actually the police commissioner of the city, Idaho Red's remark was:

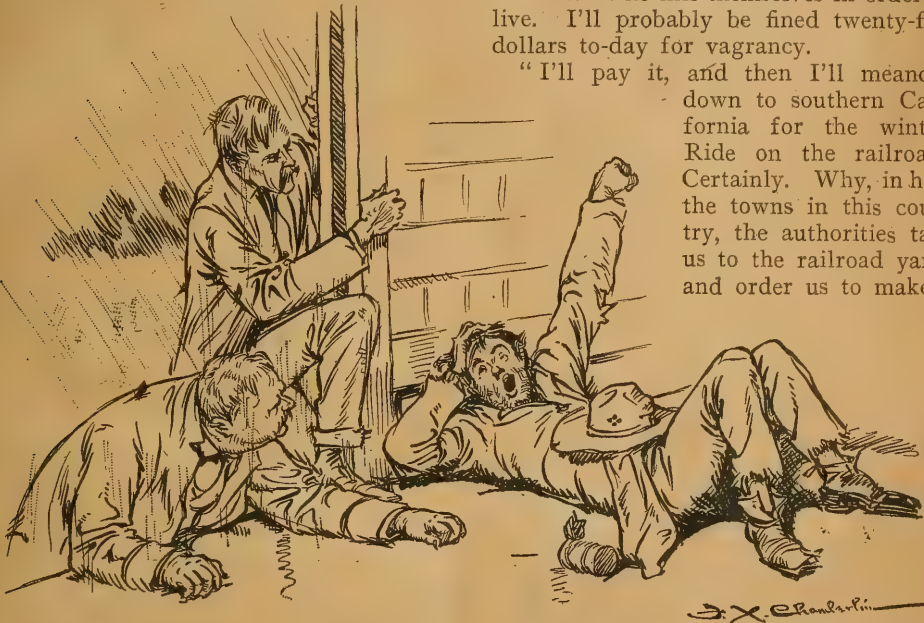
"Cert! Of course they were. Jist the same as I was the Governor of California."

But Idaho Red's friends were the offi-

cials they declared themselves to be. Why had they turned hoboes? Mayor Harper and Police Commissioner Cole had set out in an automobile to inspect certain public works far out of the city. Out on the desert their car became disabled, and they were obliged to foot it through rain and mud for miles and for hours to the water-tank station on the railroad. That's all.

"The Lady Riders."

From railroad-men and others, in my rambles about this country, I have heard



"HOWDY?" SAID IDAHO RED. "YOUSE GOIN' TO LOS?"

some strange tales of free-riders who were "rich," and of free-riders who were "females."

In San Francisco a Southern Pacific man, having a run into Stockton, told me of a free-rider who had been yanked out of a box car in the Stockton yards and taken to the lock-up. He gave the name of Edwin Hess. When searched twelve hundred dollars in currency was found on his person.

"But why, with all this wealth," he was asked, "do you travel in box cars instead of Pullmans?"

Edwin Hess made this extraordinary reply:

"I am a vagabond. I want to be a vagabond the rest of my life. I beg sometimes, and I make in that way more than most laborers. I'm never sick—I'm happy all the time. I'm better off than many men who work. I travel and see new places, new faces—and the railroads carry me free.

"An occasional thirty days in jail is just a period of rest. I've seen far more of the world, enjoyed my life more than thousands of men who stick to their jobs and have homes. And, as you see, I've saved as much money—maybe more—than men who kill themselves in order to live. I'll probably be fined twenty-five dollars to-day for vagrancy.

"I'll pay it, and then I'll meander down to southern California for the winter. Ride on the railroad? Certainly. Why, in half the towns in this country, the authorities take us to the railroad yards and order us to make a

sneak out on the first freight that comes along."

A D. and R. G. man at Denver told me of a young hobo who was found in a box car of a Santa Fe freight at Colorado Springs, and taken into custody. A startling discovery was made. That hobo was a girl. Her name was Bessie Boyington. Her hair was cut short; she wore boy's clothes; she was pretty. She said she had been traveling about the country for a year—free-riding on the railroads along with men tramps.

And she didn't mind talking about it.

"I feel jim-dandy," she said. "I'm in perfect health, and that's more than

can be said of girls who have not the courage to turn tramp."

The Romantic Part.

But, though I could not learn all the details, the most romantic part of the story of Bessie Boyington, free-rider, was that, when liberated from the jail at Colorado Springs, she fell in with a New Yorker of some wealth, and married him. In hoboland, on the Colorado railroads, she was known as "Red-White-and-Blue Bessie."

Another female free-rider I heard of in California. She was the wife of a teamster of San Francisco. The teamster's name was Joaquin Ferrer, and he was a member of the Brotherhood of Teamsters. After the fire he could get no work. He had saved not a penny, and he and his wife deliberately turned tramps.

After free-riding to Los Angeles and back he brought his wife some money. He pictured to his wife the allurements of free-riding; and Mrs. Joaquin Ferrer declared that she herself would become a free-rider.

They set out together in a box car, having resolved to beat their way to Los Angeles. Arriving there, the husband was arrested, but the wife induced the yardmen to let her go.

A couple of months later a hobo, while beating his way on a freight-train, near Banning, California, fell asleep while riding the rods. He fell from the rods, was run over, and both legs were severed at the knee. They took him to a hospital at Riverside, and there found, in his pocket, an old card of the Brotherhood of Teamsters of San Francisco, bearing the name "Joaquin Ferrer."

The News Spreads.

Stranger than fiction, that same day a woman hobo emerged from a box car of the Salt Lake route, at Riverside, California, and was informed by certain male hoboos—among whom such news travels fast—of the free-rider who had that day been run over and lost both legs at Banning, and of how he had been brought to the Riverside Hospital, and of how he had been identified as a teamster of San Francisco.

The woman hurried to the hospital, only to be told there that Joaquin Ferrer had died a few minutes before her arrival. "My poor Joaquin!" she cried. "I wish this had come to me instead of to him." And Mrs. Ferrer showed that the love that passeth understanding exists among free-riders just the same as among people who pay railroad fare.

A free-rider of the lowest class fetched up in Tucson, Arizona, on the rods of a car of a Southern Pacific freight. In broad daylight he jumped boldly from the rods, directly in front of the Southern Pacific headquarters building. At that moment a pretty girl happened to pass. The hobo looked at her once, twice, then followed her up the stairs of the headquarters building to a room on the second floor.

The girl was Miss Minnie Clauberg, telegraph operator, on duty from seven to five every day in the week. Of a sudden, she looked up from her key to find the poorest semblance of a man staring and leering hard at her. The stranger asked her a number of questions, none of which Miss Clauberg answered. Finally, the greasy man slouched away.

Willing to Marry.

Next day Miss Clauberg found a bit of wood lying on the table in her office, on which was scribbled these words: "I want a certain pretty girl for a wife."

She showed the *billet-doux*—which she has to this day—to Chief Lineman Jack Shahan, who doubled his big hand into what looked like a sledge-hammer and said: "You just wait, Miss Clauberg."

Next day the free-rider showed up in the hallway of headquarters, on his way evidently to Miss Clauberg's room. Jack Shahan was right there, too.

Biff—bang—thud! Down and out went the tramp! When he reached the bottom of the stairs he saw something more than stars. He beheld Jack Shahan standing over him, saying:

"There's a freight pulling out of here pretty soon. You better travel on it for your health."

He stood at the end of the depot platform until it came along, and then he deftly slid into an empty. But, thank Heaven! his kind is pretty scarce.

RONAN'S FIVE MINUTES.

BY ROBERT FULKERSON HOFFMAN.

An Ill Wind Blows Some One Good, High Under the Southern Cross.

YOU are accused of being a mechanic. What have you to say about it?"

There was not a shade of relaxation or humor visible in the face of

Philip Amend, senior member of Philip Amend & Sons, contracting engineers.

He had turned abruptly in his chair and launched this challenge into Ronan's lax senses as though he were casting a spear.

"I will plead guilty to that," replied Ronan quietly and without a moment's hesitation.

"Well, it's worse than that," continued the cool and even voice of the senior Amend. "You are accused of being a first-class mechanic, and it is said that you can handle men. What do you say to that?"

Ronan, standing, hat in hand, in the quiet seclusion and rich plainness of Amend's Broad Street office, was not the figure of a man that a discriminating person would select to play with, even at long acquaintance.

There was a poise of the head and shoulders, an upstanding alertness in his big, clean-cut body, and, most of all, a level steadiness of the eyes that forbade familiarity.

And yet Mr. Amend was, of necessity, a man of fine discrimination.

While he had never until then seen the head of the house of Amend, Ronan knew New York—which is another way of saying that he knew both men and manikins pretty well.

His calm eyes, therefore, made a swift and comprehensive inventory of the severe but good appointments of the big room in



SAT DOWN TO WRESTLE WITH HIS PROBLEM.

the center of which he stood, fell in cool scrutiny that seemed to crumple as by frost the look of calm superiority on the face of Amend's secretary, and settled back with definite purpose on the face of Amend, before Ronan answered:

"To advance the case as a whole, whatever it may be, I plead guilty to both counts."

"Sit down. Take this chair, won't you?" said Amend, after a moment's silence, indicating a position where the light of late morning must fall full upon the face of Ronan. "You don't seem to get rattled easily," he volunteered when Ronan had settled into the chair close at hand. "Perhaps we shall do well to get better acquainted."

"My son requested you to send in a card, when you could find the time? Yes. He did not say why or whither, I presume? No. That was right, so far, and now, no doubt, you would like to know why we have ventured to make that request."

"I should like to have you undertake a small matter for us in a big way, and leave here as soon after to-day as you can get your necessary belongings together."

"Where?" asked Ronan, concealing his surprise at the depth and intentness of meaning that the conversation had suddenly assumed.

"There," replied Amend, whirling the globe at his elbow with the swift touch of long and constant use until his finger-tip rested lightly upon a spot below the equator.

"As what?" questioned Ronan very quietly, while his eyes fastened upon the place indicated, and a dull flush of color surged strongly into his face.

"As master mechanic of three hundred and odd miles of Andean railroad, and first man in line for promotion," was the unhesitating reply.

Ronan searched the face of Amend for a moment before he asked:

"The salary?"

"Eight hundred a month, gold," replied Amend; "and you need not take the trouble to go into your personal experience or attainments. I know all I wish to know about your previous history just at this time. When would you like to give us your answer?"

Ronan could not repress a smile as he

arose; but it was because of the unerring certainty with which the conversation had been launched and hurried to its evident end, and not because of any elation at the suddenly opened prospect.

He had done things with locomotives in the busy hives along the Juniata. He had been captain of herders, as it were, at the great, open-air engine corral in West Philadelphia. He knew, also, things that can be learned only at first-hand where Chicago—the railroad sun of this railroad firmament—radiates fleeing, hurrying locomotives to every point of the compass as prodigally in proportion as the veritable sun projects its shafts of light.

He knew the mountains and the plains and something of the peaceful valley work of this land of endless railroads; but in that other land—that land of *mañana*, of to-morrow, below the equator—What?

He knew, by report, that ill winds have a way of striking as from above; that untoward things have a way of happening there—where all except the white man do all things to-morrow, and where he, too, unless he be made of the sternest stuff, soon lapses into that fatal lethargy of *mañana*.

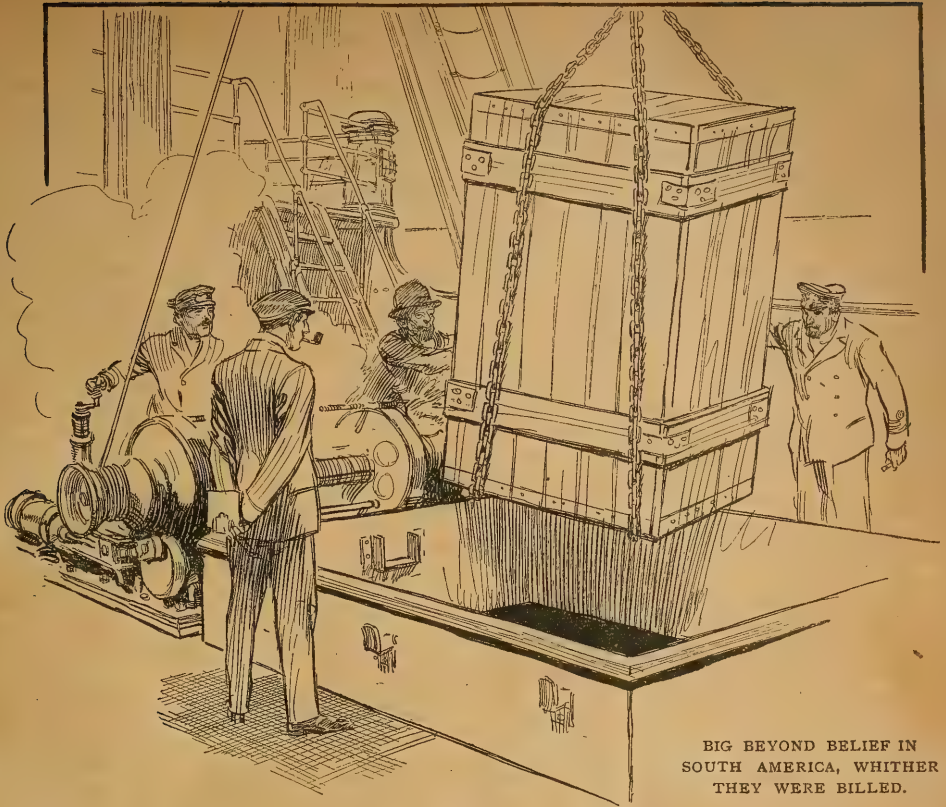
"In an hour I will return and answer," he said, and, with brief adieu, passed out to the elevators and to the din of the street.

"I thought so!" muttered Amend, grimly smiling at the little Peruvian silver grotesque upon his desk, while the express elevator swiftly dropped Ronan to the street level. "He will decide it to-day—not to-morrow. He is our man."

It was something of a decision for a man no older than Ronan to make. He was not yet thirty; he was well-established in the railroad offices in a near-by cross-street; he had the usual substantial chances of slow promotion and meager salary of the older Eastern railroads.

There was, of course, permanent or temporary relief by death or pension at the end of the long run, according as the die might fall for him.

In sharp contrast to that, an ever-present allurements looming large was the Western railroad field—that mightiest of industrial battle-fields, holding forth its tempting rewards of quick recognition, place, money, and power to the young,



BIG BEYOND BELIEF IN
SOUTH AMERICA, WHITHER
THEY WERE BILLED.

clear-headed, and capable. The *wanderlust* was strong in Ronan's blood. He had fought it at times as a man fights a malady. The spirit of adventure and the indomitable pluck that had sent his Scandinavian grandfather pioneering into the great Northwest two generations ago had, in turn, sent young Ronan adventuring eastward.

From Altoona, as an Eastern beginning, he had grown by slow and painful processes to a modest place in the official line. He had come to know New York when the flush of his strength was at its highest — when the sullen roar of the city's life by day and the pregnant silences of its nights thrilled him with a sort of exaltation at the mere fact of survival in that maelstrom of human life. A score of years, perhaps, would pass before he could properly detest it and turn again to the open.

The sense of nearness to the pulse of the world, the far reaches down the bay to the open sea, the virile tang of brine-soaked shipping at the piers, and the rich,

mixed odors of sea and cargo along the water-fronts, had, from his first experience of them, stung Ronan's senses.

But, like a stoic, he had held them all in check with a master hand. The gay enticement of the city's life, the call of the West, and, most insistent of all, the call of the sea and of that mysterious land of *mañana*, he had put resolutely aside, until now he had come unexpectedly to look upon a daring parting of the ways when he had meant only to pursue the staid and conventional path to a commonplace success.

Reaching the street, he thrust his way unceremoniously through the fringe of yelling curb brokers that overlapped from the turbulent crowd in the middle of the street and obstructed the sidewalk. He threaded his way more carefully through the gloomy and cluttered narrowness of Wall Street, and, crossing Broadway, entered the gate of old Trinity churchyard, and sat down in a favorite nook to wrestle with his urgent problem.

There was nothing in the expression-

less marble slabs of the churchyard to contribute to the answer, save that, fare forth however bravely and where they might, all men came there, or to a similar pass at last. But the chimes in the tower, ringing out the noon-hour, sent a theme of triumph and rejoicing down into the secluded churchyard and out into the roar of the street.

Ronan arose from his seat and plunged into the northward current of Broadway. He suddenly felt that he must get closer to the heart of the giant, complex life of the crowd once more before he could decide.

Shortly he was dropping from a car at Twenty-Third Street, and a few moments later he was seated in the glazed bay of a near-by café corner, where, himself unobserved, he looked out upon the midday flood of humanity that hurls itself impersonally upon the massive prow of the Flatiron Building and falls away again into the divided currents of Broadway and Fifth Avenue.

Ronan ate with the unabated hunger of youth and perfect health, and while he was thus engaged the matter somehow shaped itself in longer and more comprehensive perspective. Who would miss him a year hence if he dropped out now from that scurrying throng beyond the windowledge?

He laughed quietly over his solitary meal for answer.

Well, for the matter of that, who would miss him if he dropped into a crevasse in the Andes for a time, and eventually dropped out again?

The answer was not so ready.

A week later Ronan was looking into the open hold of a vessel tied up at the Spanish-American docks, just north of the Battery. He was carefully observing the handling of numerous huge packing-cases, containing the detachable parts of some locomotives, big for their day and generation, but big beyond belief in South America, whither they were billed. The locomotives, stripped as closely as need be, were already safely stowed in the capacious hold; and Ronan was booked to go out on the same boat, to have one of them later give him the worst five minutes of his life.

No hint of that, however, appeared in the repose of the big, silent hulks of the

engines in the shadowy hold, and, of course, there was no hint of it in Mr. Amend's parting instructions.

"Yes," said he, "I should like it if you would go with the cargo. You may be useful before you get them ashore, and, in any event, I have a theory that a man who works for us down there is the better for going around the Horn or through Magellan and looking at his job at long range going up the west coast. It gives him a wider perspective.

"Then, too, if he is going to curl up and wilt, he generally does it when he gets his first sight of the Andes from the Pacific, and goes right on up the coast and reneges by way of Panama.

"Not making any forecasts in the present instance, you understand, but—well, it offers you a broader perspective, as I have said."

"Certainly. I shall be glad to do that," replied Ronan. "That is," he hastily added in the tone of a man who has no intention of reneging, "I shall be glad to go through with the locomotives."

Some days later the ship was threading the crooked ways of Magellan, and Ronan, looking from the ice-hung crests and rocky sides of its desolate mountains to the forsaken, inane faces of the Terra del Fuegians crouching, starved, and half naked on their littered shores in the sodden July midwinter, silently thanked Providence and Philip Amend & Sons that his task lay elsewhere.

In due time the ship, with its epoch-making cargo, covered the northward coastwise journey to the open roadstead in front of that little city well below the equator, where Ronan's real responsibility began.

He wakened one morning to find the ship anchored and rolling in the sickening swell of waters that are ceaselessly whipped and mauled by the chill ant-arctic winds; and that widening of his perspective which the senior Amend had foretold, and which had been progressing apace since threading the straits, was greatly furthered when he turned his eyes shoreward in the early morning light.

From among all the days, weeks, and months of lowering leaden sky that followed while the Pacific arched its saving waters high upon the winds over the cor-

dillera to the fertile eastern slopes and left the sterile coast untouched of rain, that first morning was reserved and set aside for Ronan's welcome.

While he stood gazing, spellbound, over the dry benches of sand and rock which rise magnificently, terrace after terrace, from the wind-swept shore—over the first grand uplift of the giant mountains to the vast table-lands beyond—the dim, gray background of the nearer heights was torn asunder by a vagrant cross-current of the upper air, and the distant, ultimate, upper heads of the second cordillera stood forth for a moment, pink, white, and tipped with ice, fire, and gold against the immaculate blue of the sky.

That one glimpse of the mysterious upper world of the mountains was brief as it was beautiful. The gray cloud-pall closed its brilliant rift, and Ronan's practical mind came back, with an unconscious sigh of regret, to the rolling and wallowing ship and the chortling and swaying lighter-cranes, which were already dropping their tackle-blocks into the hold in search of cargo to be lifted.

"Well," said Ronan to the first man who came abreast of him on deck, "a man might fail here, or up yonder"—with a sweep of his arm toward the vanished upper world—"but he ought to win. And if he failed and died, he ought to be able to die well in a place like that!"

"Oh, a man can win here," said the experienced one to whom he had spoken. "He can win; but it costs a price. It always exacts something which he has not offered, and—yes, men have died up there."

A month saw Ronan thriving in full charge of motive-power affairs. His three big locomotives, like himself, were safely located in the railroad headquarters town, one hundred miles back from the coast and seven thousand feet higher in the mountains. The engines had worked their way up satisfactorily thus far, and now Ronan and the general superintendent, Verrill, faced the task of taking them safely up to their final assignment in the fastnesses of the higher cordillera.

Thus, an evening in August found them sitting amid the wordy babble of the Alameda, near the extravagant little fountain of onyx that dripped and gurgled in the

mountain city's brave array of gay flowers, willows, and eucalyptus. All things centered in the Alameda, and between its rows of sparse trees and brilliant blooms many things, at one time and another, had their vivid inception, from the first lambent glow of a pair of liquid, dark eyes to the hasty making and the early destruction of dictators and dynasties. They were planning the dangerous ascent of the higher mountains with the new engines, while distant Illimani caught the last golden glow of the sun upon its lofty crest of snow and held its evening glory high above the circle of the surrounding heights.

"Two tunnels—" Ronan was saying, when Verrill interrupted with an apologetic wave of the hand.

"Three, Ronan; three in less than the length of a decent rifle-shot—and twenty more tunnels, for the matter of that. But three where we bridge Rio de los Animas de Perdidas at the highest, and three times we cross the river within a mile's length of track!"

"The channel there is in the form of a big letter 'S,' sunk flat six hundred and fifty feet deep in the solid rock."

"Yes," Ronan quietly agreed. "There are three tunnels there, but two of them are tangent and west of the curved bridges. They need give us no special concern. It is the tunnel of nineteen degrees curvature, opening directly off of the first of those bridges—the bridge that spans the cañon from sheer wall to sheer wall—that is troublesome."

"The chief engineer declares that he will not consent, now, to working the new engines under their own steam across those two bridges. Nor will he consent to have them taken over coupled close to a lighter engine. I put in this whole afternoon with him up there, and there is only one other way to take them across."

"There he is now, Verrill! Call him over, and let us have it out with ourselves. You say you must have the engines working higher up until these lower bridges are strengthened."

"Ho, Merritt!" called Verrill, as the engineer approached in the moving throng beyond the first line of eucalyptus. "Will you join us for a smoke?"

A minute later the three men were deep in the problem that confronted them.

"No, I cannot consent," Merritt was saying with fixed determination. "It would be criminal. The weight of the water in the boiler and the thrust of the driving-wheels upon the rails are the two things that I cannot guarantee the result of, in addition to the dead weight of the engine.

"And to put two engines upon the bridge at once is, of course, quite out of the question. The factor of strength remaining would be entirely too small, and I will not consent.

"Mr. Ronan, you spoke to-day of a plan. Can we not consider it to-morrow?"

Merritt had been long in the land of *mañana*, and almost unconsciously he spoke at times in the language of to-morrow.

"To-night," replied Ronan. "Now, if you will.

"The longest bridge there is one hundred and sixty feet. We have among our stores a one-hundred-and-seventy-five-foot hawser that will tow the empty engine, and a little more, without its tender.

"If Mr. Verrill will agree, we will couple three empty flat cars behind to supply hand-brakes, hitch the rope to the new engine's draw-bar, and send one of the older, lighter engines ahead to pull her over the bridges and through the short, curved tunnel.

"We have also some strong oaken rollers, which can be fastened by their brackets vertically upon the short wall of the tunnel's curve at points that will fend the rope from chafing upon the sharp rocks after the live engine enters the tunnel. Once the strain of the rope is settled upon the rollers, they will be held all the tighter and safer against the rock, in addition to the firm fastenings we can arrange for holding them in the beginning."

Point by point, they went over the plan until it was complete in each particular, and the following day witnessed the operation in the late afternoon.

Eleven thousand feet above the level of the distant Pacific the powerful little locomotive was noisily dragging its giant substitute through the half-twilight of deep Perditas Cañon. Between the engines the big hempen rope stretched taut over the straight bridge. Behind the dead and empty new engine trailed three light

flat cars, each with its pair of *mestizo* trainmen manning the brake-wheels for emergency—dubiously, but chattering in excitement at the novelty of the thing.

Two hundred feet below, the Rio Perditas writhed and roared and tumbled in its narrow bed; and, above, the sheer walls rose straight, four hundred and fifty feet to the ragged lips of the narrow cañon.

Just ahead lay the last of the two straight tunnels, with its grade of one hundred and ninety-five feet to the mile, and at its farther end the track again crossed the Perditas upon one hundred and sixty feet of open, curving bridge, springing directly from one face of the perpendicular wall of the gorge to the opposite straight wall, and disappearing in the curving tunnel of nineteen degrees curvature and heavy grade.

There, at the nearer mouth of the curving tunnel, Ronan, with his hand resting upon the first oaken roller-fender, well bolted to the face of the rock, stood upon the lofty steel webwork of bridge and listened to the steady roar and echo of the laboring engine's exhaust.

He looked far down upon the writhing waters, and realized to the fullest that he had hung his reputation, and much more, upon that single straining rope that was creeping toward him in the opposite tunnel. Shortly the working engine pushed its front out of the wall of the cañon at the farther end of the bridge, and crept over to where he waited.

The plodding engine passed him slowly, and the slant of the great rope, strung taut from its draw-bar, sheared its way beautifully to place upon the oaken guard-roller on the lip of the tunnel. The working engine disappeared when the front of the new engine was just showing in the opposite tunnel's mouth and all going well.

Then the dead engine loomed big in the dull, gray light upon the frail bridge, responding to the steady, careful draw of the rope. The great hulk of her was moving slowly across the middle of the lofty steel span, with Ronan tensely watching the smooth play of the rope upon its fender, when the one thing that he dreaded occurred.

The steady exhaust of the working engine, now well on its slow way through



THE FENDER-ROLL AT THE
TUNNEL'S MOUTH RIPPED
LOOSE WITH A CRASH.

the short, curved tunnel, suddenly broke to a muffled roar, and Ronan straightened and stood clutching the rock like a man struck deep and hard. His eyes were fixed upon the big, straining rope, which suddenly seemed but a mere thread among the massive cliffs.

While he stared, helpless to avert it, there came the fatal sag that he dreaded. The great rope sank almost to the bottom end of the fender-roll, snapped upward perilously, and sank again.

The forward engine was slipping in the drip of the tunnel! The sanding of the rail had been allowed to fail!

An instant more, and it was done.

Another sag, and the rope caught under the fender upon the rock. The spinning engine-wheels ahead caught hard upon the hastily sanded rail and took fierce hold. The rope drew taut with a snap against the first backward movement of the dead engine and cars, and the straining fender-roll at the tunnel's mouth ripped loose with a crash.

Twice the rope sawed upward upon the jagged rock of the tunnel's curve, and then it broke with a great whip-like snap and snarl that whirled and echoed through the narrow gorge.

The backward half of it came writhing and hurtling out of the tunnel, and, whipping around the dead engine, struck a slashing blow above the heads of the frightened trainmen.

"Set them!" shouted Ronan, before the first backward movement was fairly begun. "Set the brakes!"

But they fell upon their faces and lay there cowering, while the engine and cars rapidly accelerated their slow backward movement and quickly disappeared in the straight tunnel.

Only for an instant Ronan had stood paralyzed at the sight of the men's inactivity, and then he leaped out recklessly upon the cross-ties of the bridge and raced madly after the runaway.

So quick was his start, and so cumbersome the train's first movement, that, in the beginning, he gained upon it. He strained forward in a heart-breaking, final effort in the tunnel, and succeeded in touching the rapidly receding pilot-beam of the engine. But it drew steadily out from under his clutching hands and threw him prone upon his face in the darkness.

He gathered himself quickly, and ran on again to the lower end of the tunnel. Just outside he found the frightened train-crew, nursing their bruises, huddled in a bay

of the rock where they had tumbled off, pell-mell. The runaway was hurtling down the crooked cañon, scattering its engine trappings at every curve and too close shelf of rock.

With one bitter execration wrung from him upon all the sullen, ceaseless menace of Perditas Cañon, Ronan stood watching the destroying flight of the train down the steep and crooked grade, with

Verrill's words of the morning ringing in his ears:

"I have a trip up the cañon to-day. I'll make it a point to be up there with my car and another engine when you make the pull over the last bridge!"

Poor Verrill! If he met that awful bolt of destruction hurling itself down upon him in the cañon — and he must, if it stayed on the rails but little longer!

At the first sharp turn of the track, a few hundred feet away, Ronan saw the wild careening of the engine sweep off the stack, bell, and running-board against the overhanging point of rock. As the first flying fragments lifted into the air he thought the end had come, and held his breath while he waited to see the entire fleeing mass topple into the gorge.

But she righted herself, and shot out of sight, with the flats still dancing on a head. Again he saw her



DASHING BATTERED HULK AND FLYING FRAGMENTS BACK AND FORTH, FROM WALL TO WALL.

flash into view, lower down, and toss shivered fragments high in the air and, into the gorge, while from far, deep down, almost directly beneath him, as it seemed, the feeble whistle treble of Verrill's special engine floated up chokingly, struggling for notice above the roar of the river and the destroying runaway.

So it must be! None but the Maker of the mountains could avert it now. Verrill and his crew were doomed!

Ronan's mind flashed back in that instant to the morning in Amend's New York office, and his own words, then so lightly spoken, rang in his ears like the knell of doom:

"I will plead guilty to *that*!"

And what of *this*? It had been of his planning, his execution—all his, but the stupefying slip in the tunnel, against which he had cautioned, first and last. He saw his own life going out in dishonored memory as the price of the lives of the men who would, in a few moments, die down there below him, almost within his sight.

He saw in his mind's eye, all that and more, in those few crowded minutes, and then, for the last time, he saw the big engine flash into sight again, stripped of its cars, somewhere in the three and a half miles through which it had miraculously staggered.

Even then, it was only a scant mile straight away from him, but far below, and speeding along the mountainside in a shaft of daylight that penetrated the narrow barrel of the cañon.

He saw her rush at the point of the last distortion of the cañon wall that lay in the line of his sight. She struck it with a furious lunge that sent rails and ties twisting and whirling in the air, and, suddenly, her head end went down close upon the dizzy brink of the gorge.

She threw her shattered cab crashing in a mass of splintered rubbish ahead of her into the depths, and leaped after

it, dashing battered hulk and flying fragments back and forth, from wall to wall, until the boiling waters far below swallowed them.

And then, while Ronan stood fixed and staring from his lofty lookout, the treble of Verrill's engine whistle came up again, more clearly, and the little engine, drawing the superintendent's car, shoved its bright brass-trimmed front end round the lower point of the shattered curve. It crept to a stop in a shaft of gray light, just short of the six hundred and fifty feet of spread track which the lost engine had left, in its final riot, as the only trace of the disaster.

That ended what Ronan unhesitatingly calls the worst five minutes of his life. And, to those who are so fortunate as to find him very comfortably, even luxuriously, at home in one of the many little earthly paradises of the Andean cities, he will sometimes tell, especially if it be a newcomer who is inclined to despair of South America, how he once, sent in his resignation within sixty days after his arrival there, and how Philip Amend & Sons would neither accept, nor seriously consider it.

A very good while ago, that was, and Ronan is of the higher executive staff now; but he can repeat, without reference to his musty letter files, just what the senior Amend wrote him upon that trying occasion of his first time out. This is it:

That scheme of yours evidently had its weak spot. But, we can better afford a man who, once in a lifetime, drops \$20,000 down the cañon, trying to do something to-day, than to pay an everlasting tribute to *mañana*.

Don't be too liberal with your plea of "guilty." Your first one was all right, but I consider it my turn to render a verdict in your case, and it is this:

"Not guilty—but, don't do it again." Stay with them, young man.

"And," says Ronan, "I stayed."





LIFE'S RAILROAD.

BY WILLIAM GORDON HAMMOND.

Written for "The Railroad Man's Magazine."

DID you ever take time to consider
The lives we are living each day—
Are we helping ourselves, and our neighbors
Along the unballasted way?

Is our road-bed the best we can make it?
Are the ties and the rails all set true?
Are the fish-plates secure and well leveled?
Are we always marked up, "overdue?"

Are our road-crossings all well protected?
Do our signal-lamps ever burn bright?
Are our head-lights trimmed neatly, and burning,
To show us our way through the night?

Is our hand always gripping the throttle?
Does our fireman keep up enough steam?
Is our engine the mogul to pull us
Up the hill where our hopes brightly gleam?

Are there many up-grades we must double,
And down-grades that call for the air,
And stretches quite long and uneven,
That fill us with woe and despair?

Are the agents at all of our stations
Reliable, careful, and true?
When our train blows the whistle for signals,
Are we safe when they let us go through?

Oh, let us take time to consider
The lives we are living each day,
So the special by which we are trav'ling,
Will keep on our own right of way.

And when our last trip is completed,
And we step down all covered with grime,
The operator will send in his OS.,
And say that we got there on time.

Express Thieves, and How to Catch Them.

BY CHARLTON ANDREWS.

HONESTY is not only the best policy; it is the only one that will keep you outside the penitentiary, if you happen to be in the employ of an express company. These companies have so surrounded themselves with safeguards that dishonesty has absolutely no terrors for them, whether it be within the ranks of the company's employees or without.

The thief, be he large or small, employee or working highwayman, may flatter himself that his trail is covered beyond possibility of discovery; that he may settle down to enjoy his ill-gotten gains in peace and security. At the very moment when he dismisses fear from his mind, fate, in the guise of a special officer of the express company, or perhaps the surety company that guaranteed his honesty, may step in and tap him on the shoulder.

The long arm of the law reaches across plains and over mountains and rivers. Distance is no obstacle, and time no consideration. Sooner or later justice overtakes the trembling fugitive, and he passes into the domain of the zebra stripes.

The Express Companies Have Made Secure the Enforcement of the Eighth Commandment Against Dishonest Employees and the Road-Agents Who Once Infested the Mountains.

EVER since express companies were organized, their treasure-boxes have had a peculiar fascination for the dishonest.

Opportunities for stealing money in transit, not only by bandits on the lonely roads, but also by employees, of necessity left unwatched for many hours at a time with large sums in their custody, have been so exceptionally favorable that the express companies' record of losses by theft is not approached in the history of any other business.

But the eternal struggle for the survival of the fittest evolved, as it always does, unusual remedies to meet unusual conditions. The express companies have fought for self-preservation with an energy and skill that have at last rendered

them practically immune from depredations by thieves within or without.

So thoroughly is it understood by all men that robbery of an express company carries in its wake a retribution as inevitable as death itself that in these days only those below the average of criminal intelligence will attempt it. Trains and stages are held up nowadays only by boys whose brains have been addled by trashy novels and cigarettes.

The last stage robbery in Idaho was committed two years ago by two boys aged eighteen and nineteen, who had been brought up on a lonely farm, and who had never seen a train until they were taken aboard one by a Wells, Fargo & Co. secret-service agent four days after their foolish exploit, on their way to trial and certain conviction.

Stealing by employees now occurs only in extremely rare cases. The last instance of the kind occurred last August. An agent of the Southern Express Company had read newspaper accounts of the long fight against extradition from Canada conducted by Greene and Gaynor, until he became filled with the idea that he perceived a legal device by which he could avoid extradition for robbery. Accordingly he began to lay plans to test his theory.

He applied for leave of absence, announced that he was going to Canada on a fishing-trip, obtained passes for the journey, and finally started ostentatiously for Montreal, helping himself to twenty-one thousand dollars from an express shipment just before he left. He had no difficulty in getting to Canada—and even less in getting back home again in custody of a detective. It only required seven days to demonstrate that his theory about the weakness of the extradition treaty was all wrong.

Coping with the Highwayman.

The story of the struggle of the express companies to protect their treasure-boxes is fascinating. There were two widely different classes of enemies to meet—those on the outside and those on the inside. The outside enemy, the highwayman, offered the earliest and the most difficult problem because the express companies were young, and therefore poor in resources and experience, and also because the country was new and the machinery of the law was not yet in good running order.

In the days following the discovery of gold in California, Montana, and Colorado, highway robbery was an easy, profitable, and comparatively safe vocation, rather extensively followed by persons with conscientious scruples against work.

When the vengeance of the vigilantes made promiscuous murder and robbery somewhat dangerous, the holding up of stages by masked men became more and more common until Wells, Fargo & Co., who practically monopolized the express business in the Far West, were forced to take the lead in a war of extermination upon highwaymen as the alternative to bankruptcy.

The vicissitudes of this war, which lasted from the earliest days up to 1895, make up one of the most picturesque chapters in the history of the United States. It is also a notable example of how "individual enterprise" may be crushed by corporate aggression.

Some idea of the magnitude of this war upon the highwayman may be gathered from the fact that in the fourteen years from 1870 to 1885 Wells, Fargo & Co. were robbed by highwaymen of four hundred and fifteen thousand three hundred and twelve dollars. Two guards, four drivers, and four passengers were killed in these robberies, and six guards, four drivers, and two passengers were severely wounded.

There were three hundred and thirteen stage robberies, thirty-four attempted stage robberies, four train robberies, four attempted train robberies, and three hundred and forty burglaries of express offices. Also seven horses were killed and thirteen were stolen.

On the other side of the ledger, five highwaymen were killed in the act of robbing the express, eleven were killed while resisting arrest, and seven were lynched for the crime of robbing the stages. The survivors, two hundred and forty in number, were sent to prison for long terms at hard labor. Not one of the highwaymen escaped punishment. Much of their booty was recovered.

Costly Rewards.

To even the score in such conclusive style cost Wells, Fargo & Co., in rewards, percentages on treasure recovered, salaries of guards and detectives, and expenses of arrests and convictions, the tidy sum of \$512,414.

The plan of campaign was neither complicated nor mysterious. When a stage was held up, headquarters in San Francisco would be notified as promptly as possible, and an operator from the secret-service department would be sent to the scene of the robbery. Often he had merely to lead a posse into the mountains on a man-hunt which quickly resulted in the killing or capture of the highwaymen. The celerity with which these hunts were conducted is manifest in the court records of California, Nevada, and Arizona. For

example, George Adams robbed the stage from San Luis Obispo to Soledad, California, on the 3d of December, 1879. Twelve days later he was delivered at the California state prison to begin a long sentence for the crime.

Still quicker time was made in the case of James Casey, who found himself in state prison six days after he held up the stage from Grayson to Bantas on the 23d of October, 1884. The usual time, however that elapsed between the hold-up and the journey to the penitentiary ranged from three weeks to three months, depending on the time the courts required to reach the case.

The Life of a Stage Robber.

In a number of instances the highwaymen eluded pursuit long enough to hold up a second stage before their capture. Twelve men were active enough to commit three highway robberies before their inevitable fate overtook them, four held up four stages each, another was killed in the act of holding up his fifth stage, and still another looted six express treasure-boxes before the secret service gathered him in.

Richard Perkins held up a stage from Los Angeles to Bakersfield on the 4th of December, 1875, was promptly captured, and received an eight-year sentence thirty-five days after the crime. Not being satisfied with this experience, he held up another stage within sixty days after completing his sentence. He succeeded in repeating the performance six times more within the ensuing six months. Then Wells, Fargo & Co.'s secret service got him and had him sent up for life.

"Black Bart," the Champion Road-Agent.

The record in highway robbery was set by "Black Bart," whose right name was Charles E. Bolton. Choosing the vicinity of Yreka, California, as his favorite field of operations, he held up Wells, Fargo & Co.'s stages no fewer than twenty-seven times in the eight years, three months, and seven days that elapsed between his first exploit and his capture. One stage he held up four times at the same spot.

Californians declared that the drivers got so accustomed to being held up at

this point that they stopped the stage of their own accord and held up their hands whenever they approached the place. After waiting a few moments, if no one came for the treasure-box, they picked up the lines and drove on.

Black Bart was always well dressed, always polite, and he never fired a shot. Frequently he was so grateful for the contents of the treasure-box that he dropped into poetry, which he signed "P.O.8," and left pinned to a tree or laid upon a rock at the scene of his exploit. The secret-service men were frantic, for they could get no clue to the industrious poet-highwayman.

But the pitcher went to the well once too often. At dusk on the evening of November 3, 1883, as the stage from Sonora to Milton, California, reached the spot where it had been held up on July 26, 1875, the familiar black figure stepped out from behind the same old rock, and, in its accustomed style, drew a bead on Old Bill Moore, the driver, with the usual courteous request to hand down the treasure-box.

Once Too Often.

Now, Old Bill had been held up three times before by the selfsame figure in the black mask, and he felt that his forbearance was being imposed upon.

It made him mad clear through. However, there was nothing to do but obey orders, for the gentlemanly highwayman certainly had the drop on him. He kicked the box to the ground and received a cordial "thank you," coupled with permission to drive on.

Old Bill went on his way until he reached the bottom of a little valley a quarter of a mile beyond, and out of sight of the scene of the robbery. Then he did something which was in direct violation of all the ethics of highway robbery. He stopped, wrapped the lines around the handle of the brakes, crept back up the road until he was within close range of the highwayman, who was still wrestling with the lock on the treasure-box, and cut loose at him with his revolver. With bullets kicking up the dust all around him and singing about his ears, the highwayman departed with such extreme precipitation that he left one of his cuffs behind. On the cuff was a Chinese laundry mark.

The laundry mark being identified, enabled Secret-Service Officers J. B. Hume and J. N. Thacker, of the express company, accompanied by a couple of policemen, a week after the robbery to enter the room of a quiet, well-bred gentleman who lived within a block of Wells, Fargo & Co.'s office in San Francisco with drawn revolvers and request him to hold up his hands.

The quiet gentleman readily admitted that he was Black Bart, the "P.O.8," and that he had committed the twenty-seven robberies.

He admitted other things which made Old Bill Moore madder than he was on the evening of his last hold-up; for he declared that he had often held up stages with an empty gun, and that on his last adventure he had compelled Old Bill to deliver the treasure-box by pointing a fence picket at him. In the gathering dusk the picket looked enough like a rifle to serve the purpose.

Black Bart declared that he had a horror of shedding blood, that he had never hurt any one in his life, and that he would have given up his profitable career of robbery rather than fire a shot at a human being.

Near the Office.

He had lived for years within a block of Wells, Fargo & Co.'s office, had often shipped booty stolen from the express company over its own lines to his home in San Francisco, and was in the habit of taking his meals at a restaurant much frequented by San Francisco detectives. He was well educated, well informed on current topics, a good talker, and even after his arrest exhibited genuine wit.

He had friends of the highest respectability, was cultured in manner, neat in dress, never swore, and never gambled.

All this was of no avail, for he met the same fate that was so relentlessly meted out to the coarser class of highwaymen who were recruited chiefly from laborers, miners, farm-hands, and cowboys.

After the capture of Black Bart, the express companies had comparatively little trouble with highwaymen until the hard times of 1893, when there was a recrudescence of the crime, more particularly in the region south and west of the Missouri River.

In the first six months of 1893 there were twenty-one train robberies, the express-car being the object of attack in each instance. In the latter half of the year this form of robbery was even more frequent. The express companies were in desperation and so were the railroad companies.

Meetings of the heads of both classes of corporations were held to devise means to stop the robberies, the matter was taken up in Congress, and widely discussed in the press.

Guards on express-cars were doubled, and inventors everywhere busied themselves with models of bullet-proof cars which nobody wanted, because bullet-proof cars could withstand dynamite no better than any other kind.

Best Prices for Dead Robbers.

There was only one thing to do, and the express companies did it. They instructed their secret-service departments to bring in every man who took part in an express robbery, regardless of cost, and to do it with a swiftness which would make the industry of express robbing unpopular.

The manner in which the express companies preferred to have their train robbers brought in was indicated by the standing offer of the American Express Company of five hundred dollars a head for dead express robbers and only one hundred dollars a head for live ones. This offer applied only to the common run of train robbers. In aggravated cases the reward was greatly increased.

When the Dalton gang, which in less than two years robbed the express companies of three hundred thousand dollars and killed four men in doing it, was wiped out at Coffeyville, Kansas, on the 5th of October, 1892, the express companies sent six thousand dollars by telegraph within twenty-four hours after the shooting to the men who did it. This was supplemented by an additional ten thousand dollars by mail a few days later.

C. S. Cox, the Wells, Fargo & Co. agent who fired the first shot and brought down his man, was presented with a fine gold watch and chain with an inscription commemorating his deed, and Jim Spears, the liveryman who killed three of the gang

as fast as he could work the lever of his repeating rifle, was given a gold medal in addition to his share of the money reward.

Quite Remunerative.

In short, the hunting of express robbers was made so remunerative that very soon there were no robbers left to hunt; and for the last dozen years the express companies have enjoyed an almost complete immunity from stage and train robberies that has left them free to perfect a system of protection from dishonest employees.

The prevention of theft by employees presents a totally different problem from that afforded by highwaymen, and one distinctly easier of solution. The salaried employee is higher up in the social scale than the highwayman. Therefore when he goes wrong he is easier to trace, and family ties and old associations exert a far more powerful influence in bringing him back sooner or later to the scene of his crime, where he may be apprehended at a minimum of trouble and expense.

The system of checking used in the express business is so elaborate that the disappearance of a valuable package is at once detected. To begin with, when a money package comes into an express office, it is receipted for and then sealed by two clerks. Every man into whose custody the package is given must sign a receipt for it.

Down to a Minimum.

If it goes from one principal point to another, it is placed in a safe with a combination lock. The messenger who has charge of the safe on the train never knows the combination, and therefore could not open it without blowing it open. The only money packages he handles are those destined to local points on his run, so even if he were inclined to be dishonest his opportunities are circumscribed.

The chances given to a dishonest man to steal are reduced to a minimum by a civil-service system by which all men in positions of trust are tried out pretty thoroughly in subordinate places before they are permitted to handle money.

After a man has been advanced to a place in which he may be tempted to be

dishonest he is safeguarded in a way which has proved wondrously effective. Every express-messenger must furnish a bond from the American Surety Company of two thousand five hundred dollars to five thousand dollars, according to the importance of his run, and every agent is also placed under bonds ranging from five hundred dollars to five thousand dollars. This is not done because the express company expects the amount of the bond to recoup them in case of loss, but because the American Surety Company has a detective staff which is not surpassed in the world.

Capture Is Certain.

If an employee steals anything from an express company his capture and punishment are as certain as anything human can be. If the sum stolen is less than the amount of his bond, the surety company is notified, and the express company gives itself no further concern in the matter. If the amount of the theft exceeds the amount of the bond, the express company detectives cooperate with the operators of the surety company in running down the culprit.

Some curious notions are extant regarding what takes place when an express company is robbed. The popular idea is that if a messenger or other employee of an express company were to decamp with a large sum there would be agitated conferences of officials, frantic messages, and wild hurrys to and fro of an army of detectives who would sacrifice appetites and sleep in running down all sorts of impossible clues.

The culprit always shares this belief, and acts upon it. He gets as far as possible from the scene of his crime in the shortest practicable time, and for several months goes into hiding that is often very good.

Impossible to Get Away.

What really happens in a case of robbery is as far as possible from the popular idea. If an express-messenger *en route* from New York to Chicago were to disappear from his train with fifty thousand dollars to-morrow the trainmen would notify his division superintendent as soon as he were missed. When the absent mes-

senger's run was checked up at Chicago the exact amount of his shortage would be known, and reported by wire with such other facts as were available to the general manager in New York.

The general manager would order the message to be sent to the surety company and dismiss the matter from its mind.

The president of the surety company would give the message a casual glance, send it up to the secret-service department, and apparently forget all about it. Such an event would be considered merely a routine incident to be ground through the proper department, and that is all.

When the matter was referred to the secret-service department, a description of the man wanted would be sent to each of the twenty branch offices scattered at advantageous points throughout the country, with instructions to take him in if found. If on investigation no really satisfactory clue were discovered, nothing further would be done. All the operators in the detective department would tuck the description of the man wanted and his crime away in a convenient corner of their brains and go about their business. Executive officers of corporations are seldom given to spending money unless they have a pretty definite idea that something is to be gained by the expenditure; and certainly the sending of detectives on wild-goose chases is an unpromising investment.

Gets Within Gunshot.

Nobody does any worrying but the fugitive. Neither the express company nor the surety company is in any hurry to get the culprit back. In the first place, haste is unnecessary; and in the second place, it is undesirable. The moral effect of an arrest four years after a robbery is considered much greater than if made four weeks afterward.

But perhaps the consideration of great weight is that in ninety-nine cases out of a hundred the fugitive will practically arrest himself if given time enough. That is, he will either come back where he is certain to be seen by the operators, or else he will betray his hiding-place by some clue so unmistakable that his arrest requires no effort beyond the journey to get him.

The conduct of the fugitive from jus-

tice is singularly like that of a rabbit when flushed by the hunter. At first he scurries wildly away, then circles back toward his starting-point until he is within easy gunshot.

A few examples may serve to show, perhaps, that the work of a detective is more like the vigil of a cat for a mouse than like the *Sherlock Holmes* of fiction, who racks his brains over a partly burned match to determine whether it was struck by a right-handed or a left-handed man and finally reaches the sagacious conclusion that it was used by some one who wanted a light.

Without an Effort.

F. P. Beers, Wells, Fargo & Co.'s agent at Campbell Hall, New York, six years ago took a shipment of four hundred dollars and disappeared. The case was duly reported and promptly forgotten by every one but the operators in the secret-service department of the surety company. Beers had never had a photograph taken, so the operators had only his description to work on. Eight months after Beers disappeared, W. L. Johnson, one of the surety company's operators, noticed a man on Broadway who had evidently just arrived from the country, judging by the way he was staring about him. A closer look revealed a face and figure that tallied with the missing Beers. Johnson stepped up behind the stranger, struck him a resounding slap between the shoulders, and exclaimed:

"Why, hallo, Beers! Why did you take that four hundred dollars and leave your wife at Campbell Hall?"

The man was so startled by the slap and the question that before he could regain his self-possession he blurted out:

"I had to."

Then he realized that he had betrayed himself, and followed Johnson shamefacedly enough to meet his fate.

George Brooks, alias Hamilton McAuley, formerly a telegraph-operator, was Adams Express agent at West Hickory, Pennsylvania, in 1888. His knowledge of telegraphy and the express business enabled him to evolve the most ingenious scheme in the history of the company for robbing the safe of one of the messengers.

Taking a telegraph-instrument, he went to a lonely spot, a mile outside of Templeton, Pennsylvania, sent a message purporting to be from George Bingham, the division superintendent of the express company, ordering Thomas Bingham, the messenger he knew would be on the run from Oil City to Pittsburgh that day, to turn his run over to Hamilton McAuley at Templeton and return to Parker to await orders. Then he cut the wires so the message could not be verified. Then McAuley went to the station and waited for Bingham's train.

As everything seemed regular enough, Bingham turned his run over to McAuley in accordance with the fake telegram. McAuley checked Bingham out in proper style and went on to Pittsburgh. There he checked out, and while on the way from the depot to the express office took a package containing ten thousand dollars and disappeared.

Finally Caught.

He succeeded in getting to Brazil. After the lapse of four years he concluded that, as he had never seen any indications of pursuit, he might safely venture back home. He was getting homesick, and, besides, he was nearly out of money. He returned to Oil City under the name of Clyde P. Hamilton, and was arrested on the 1st of May, 1892, within twenty-four hours after his arrival, tried, convicted, and sentenced to four years.

He had been recognized by an operator of the express company when he landed in New York, followed to Oil City to save delay in extradition, and arrested.

George T. Bagley, a United States Express messenger, running west out of Chicago on the Rock Island on the 18th of November, 1892, took a shipment of one hundred thousand dollars, and left his car at Davenport, Iowa. The trainmen immediately notified the division superintendent of the express company. Just eight hours after his crime had been committed, Bagley stepped off a train in Chicago into the arms of an express company detective who was waiting for him. The detective had rightly concluded that Bagley would hurry back to Chicago as affording the best place for concealment pending a chance to leave the country.

Every cent of his booty was recovered, and twenty-four days later he was sentenced to three years in the penitentiary.

To the Antipodes.

Paul Hume, a Wells, Fargo & Co. messenger running between Sacramento and Redding, California, absconded with three thousand dollars on the 7th of March, 1893. He managed to get on board a vessel bound for Honolulu, and after wandering aimlessly about from port to port in the Pacific, he reached Brisbane, Australia, in September of the same year. Here he imagined himself safe. But in less than a month a man stepped up to him in the street and said:

"Well, Hume, I guess it's about time for you to go home and take your medicine."

T. C. Valentine, an express agent at Elgin, Illinois, absconded eight years ago with a shipment of ten thousand dollars. He succeeded in getting to Bluefields, where, as he knew Nicaragua had no extradition treaty with the United States, he thought he would be safe.

In six weeks an operator for the American Surety Company who had followed the trail he had so plainly left, found him on a coffee-plantation in the interior. The operator talked the matter over with Valentine, saying that while he could not be taken back against his will, the best thing for him to do was to return, take his punishment, and begin life anew.

Getting Him Back.

The operator pointed out the obvious facts that the country was extremely unhealthy, and that even if he escaped the fever he was among strangers who could not speak his language, that his money would soon be gone, and that he would have no means of getting more, that he was far away from friends, and that he had condemned himself to a worse fate than that which awaited him at home.

Valentine agreed to go back with the operator. They returned to the coast, and while waiting for a steamer to take them home Valentine was stricken with yellow fever. No one would go near him but the operator who had run him down. He nursed Valentine tenderly till he died.

37-YEAR-OLD PASS STILL GOOD.

The Remarkable History of an Old-Time "Free Ticket" Issued by the Texas and Pacific Railway Company, and the Men Who Were Connected with It.

BY C. A. BEEHN.

IN Marshall, Texas, is an old-time railroad pass, which may prove interesting on account of its age and because the men connected with it are now prominent in business in different parts of the United States.

This old pass is the property of J. E. Powell, familiarly called "Al" Powell, who is conductor on the Louisiana division of the Texas and Pacific Railroad. Mr. Powell has had it in his possession for twenty years. He values it highly. Through his kindness, a facsimile is reproduced here.

When Mr. Powell first saw the pass, he expressed a wish to own it. It was then several years old. About a year later, when the owner was traveling on the train upon which Mr. Powell was conductor, he said: "Al, you want this old pass very badly, don't you?" and when Mr. Powell expressed a wish for it, it was given to him as a souvenir. It is in good condition yet.

The pass was printed in Marshall, in the *Iron Age* office, about 1871 or 1872, by W. B. Clark, who then ran the print-shop on the public square. The Texas and Pacific Railroad issued it August 23, 1873, to Floyd Shock, who at that time represented Van Beek, Benard & Tinsley, printers, of St. Louis, and reads "From Marshall to Shreveport, Account of the Transportation De-

partment. Good one way only. Not good unless used within ——— days from date. And not transferable."

It is signed by John F. Dickson, general superintendent, and countersigned by W. H. Newman, G. F. and P. A. Its number is 514.

Strange to say that, though this old pass is nearly thirty-seven years old, all of the men whose names appear on it are still living and are prominent business men in various parts of the country.

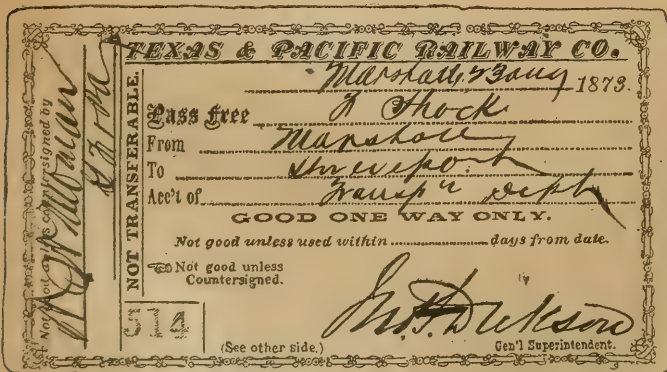
Floyd Shock, to whom the pass was issued, was then a traveling man, and is now in the Central National Bank, St. Louis, Missouri.

John F. Dickson, who signed the pass as general superintendent of the Texas and Pacific Railroad, was the founder of the Marshall Car Wheel & Foundry Company, and is now the owner of the Dickson foundry at Houston, Texas.

W. H. Newman, who countersigned the pass as general freight and passenger agent of the Texas and Pacific Railroad, is the same Bill Newman widely known in the railroad world, who, for many years past, was president of the New York Central lines, and is now a director in many of the largest railroads in the United States.

Mr. Newman, who began his railroad career in Marshall, has gone up as high as any one could in his profession, and is recognized as one of the greatest railroad men in the country, still makes occasional trips to Marshall.

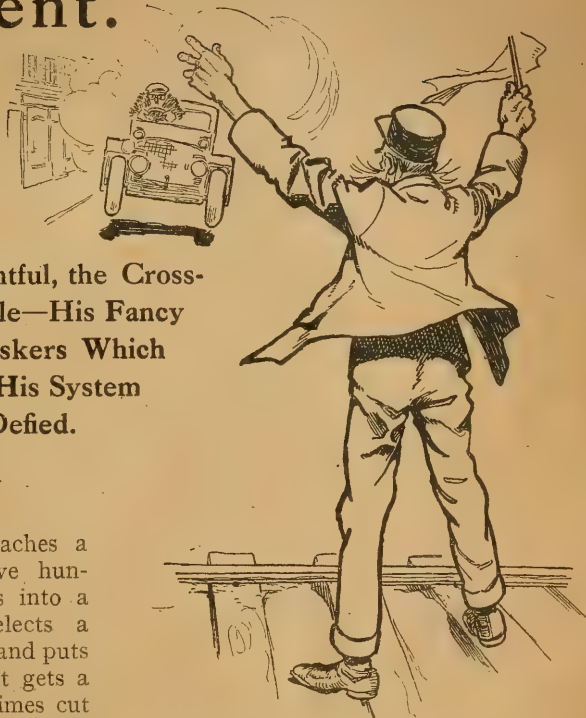
The pass was never used, and is still good, because it bears no time limit. It is stated that the reason it was not used was because shortly after it was issued yellow fever broke out in the neighborhood of Marshall.



ISSUED IN 1873, —AND STILL GOOD

Observations of a Country Station-Agent.

BY J. E. SMITH.



No. 23.—Hiram Benson Lightful, the Crossing-Watchman of Pippenville—His Fancy Job, His Wonderful Whiskers Which Won Him a Wife, and His System Which He Alone Defied.

AS soon as a village reaches a population of five hundred, it organizes into a town or city, elects a board of trustees, and puts on a few airs. It gets a town marshal, with a star sometimes cut from the bottom of a tomato can. It gets a debt that will run into the next generation, and then proceeds to enact a few ordinances for the regulation of its internal affairs.

Usually, the curfew ordinance comes first, then a pig ordinance, then a pedler ordinance, then an ordinance compelling the railroad to place a flagman at Main Street where the railroad crosses.

There is nothing so satisfying to the board of trustees as the flagman ordinance. It gives the town the same-metropolitan aspect that the bonded indebtedness does. It advertises.

When the passenger-train pulls over, and the passengers see a flagman at the crossing, and get a fleeting glimpse of the Odd Fellows' Block up the street on the corner, they cast up the place as of some importance.

This is gratifying to the local pride, and doesn't cost the town a cent.

A railroad does not always enthuse over the crossing-watchman proposition.

It will now and then succeed in compromising the matter with the town council by installing an electric signal at the crossing.

This is a mechanical arrangement that gives warning of the approach of a train by monotonously tapping a gong, thereby notifying all concerned to "look out."

The gong outfit is not always satisfactory to the town trustees, as it spends no money and adds nothing to the population. The human crossing-watchman counts one, and his pay goes to the merchants.

Crossing-watchmen divide into two general groups.

One is provided with a "dog-house," or "shanty." His working equipment consists of a lantern and a white flag. When a train approaches, he sallies forth to the middle of the street and personally stops the travel outfits that are about to cross the track until after the train passes.

The other kind is more aristocratic.

He lives in an elevated house, and, by a simple device, raises and lowers an arm or gate across the street without the necessity of going outside. He is the city watchman.

In all the small town and country crossings only the first-named are employed.

Quite naturally, then, when the faithful chronicler of the thoughts and deeds of railroaders seeks to write of a job with an active-personality connection, he tags the watchman who marches out into the middle of the street, with motion, gesture, and loud command, who seizes the reins of high-stepping horses, who lays heroic hands on some aged venturer, and who violently yanks some reckless youth from threatened danger.

That's a real crossing-watchman.

The man who, from an elevated loft, taps his bell a few times, then merely raises and lowers an arm over the street, has no personal contact with the passing throng.

"That kind of a job's a snap," said Hiram Benson Lightful, when I mentioned the city crossing-watchman. "They don't have to stand right out in the street in all kinds of weather, and take a hand in it, and git cussed and bumped around and run over like we do. Any old woman can do what they do," he added contemptuously.

I have wanted to write of Hiram and Hiram's job for some time.

If all the crossing-watchmen in the land were mustered into one battalion, it would far outnumber the old Continental army. So they deserve a passing line in railroad literature.

Hiram may be pardoned for speaking disrespectfully of the city watchman. Perhaps the city watchman could put one over on Hiram if he were asked. We might start something—say, the outside *vs.* the inside crossing-watchman; but far be it.

Leave it to statesmen, clergymen, doctors, and explorers to view one another with distrust, ridicule, and contempt. If Hiram has a little of the same for his co-workers, it is only a human quality. No discredit to Hiram for it.

Hiram is watchman at the Main Street crossing at Pippenville every day from six to six.

He carries a white flag in one hand, with which to wave the street traffic to a halt when a train approaches.

His whiskers are of Time's kindly frost, discolored by tobacco-juice. A man with amber-stained whiskers will tell you all—any time—anywhere—and glad of the opportunity.

I sat down in Hiram's "shanty." I do not know why such opprobrious names are given for a watchman's house as "shanty" and "dog-house."

As a rule, they are nice, neat, tidy little houses, with windows all around, a good chair, and one of those heavy little iron stoves that radiates warmth to every nook. They are observatories, and they deserve a more classic and dignified name.

The walls were decorated with dazzling pictures of beauties, near beauties, and semibeauties lifted from the wide selection of pictorial advertising. Three calendars stood out in bold reminder of the passing days. A crossing-watchman's house always contains calendars. No one knows why. The watchman is on the job every day of the year, and why he should have occasion to mark the days or the months, since they are all exactly alike to him, no one knows.

But the beauties! They were eying me with coquettish squints or open-eyed innocence from every angle.

"Where did you find this collection of angel-faces, Hiram?" I asked.

"Whenever I run acrost a purty one, I git it and tack it up inside," he replied. "Them is some of the finest that ever peeped out. All us crossin'-watchmens is old uns—and broken down. Maybe you never tho't of that. Everything else gits old and stale to an old man except—except the face of a purty woman. When I git so I don't care to look on them any longer, I reckon there'll be some doin's for the undertaker."

"How long have you been with the company, Hiram?" I asked.

"Let's see," said he. "What year was it old Horace Greeley run for President? In 1872, wasn't it? I went to work on the section the year before that; makes thirty-nine years, doesn't it? Guess that's it. Thirty-nine years."

"Didn't they ever offer you anything better, Hiram? Didn't they ever want to boost you?"

"Me! Why, ding my hide! I didn't give 'em a chanct. Whenever they crowd-ed me eny, I'd slow up. And I kept a git-tin' slower an' slower until they put me to watchin' this crossing."

"I've always heard," I said mildly, "that the engineer is the man who is the 'High Ike' on the life-saving stunt, and that next to him is the train-despatcher, and next the telegraph operator, then the



"WE DON'T GIT NO CREDIT FOR SAVIN' HUMAN LIFE."

Hiram bit off a chunk of Dog-Leg twist. It inspired a new thought.

"Guess this is about where I belong. I'll tell you, more of 'em don't go up eny; they're too durned lazy and careless, same as me. Here comes the switch engine. Wait till I stop that mule team.

"Watchin' a crossin' is one of the most responsible jobs on a railroad," said Hiram, when the engine had gone by.

"Is it?" I replied. "I never thought of it in that way."

"Course you never hev. Nobody does. If it wasn't for watch'n' 'em all the time, they'd be a lot of people killed on these crossings. We don't git no credit for savin' human life, but there's thousands of people who ort to thank us to-day that they air still on earth."

section foreman, so that puts you, Hiram, along about number five on the list."

"Section foreman! Telegraph operators!" exclaimed Hiram. "Huh! How do they git in on it?" Hiram spat contemptuously into the corner of the shanty. "I ain't never seen eny section foreman or telegraph operators wearing eny of them Carnegie-breastplates."

"There isn't any such thing as the International Union or the Amalgamated Association of Crossing-Watchmen, is there, Hiram?"

"They ain't no order of us," replied Hiram, "'cause they's no way we can git together. If we was organized, and c'u'd all go out, we'd tie up the road tighter'n blixin'."

"I can't figure that out," I said.

"Can't, eh? Why, it's 'cause the law'd git after them right a way. Crossing-watchmen is all fixed by statutes. They've got to be, and every day, too. If they's eny miss, the railroads 'ul git soaked! You bet! We'd have 'em, all right. The law don't make eny exceptions on account of strikes. The railroads 'ud be liable every day until we returned to work. Ain't eny others got that kind of a holt on 'em."

"But, Hiram," I protested, "they wouldn't be over an hour and a half finding some one to take your place. There are hundreds of old men everywhere who would jump at the chance of a life tenancy in this neat little bunga' *, and at the easy work you have to do."

"That's what you say!" exclaimed Hiram with warmth, and bearing heavy on the "you." "They can't git 'em, I tell you. Every time they's a vacant crossing it takes a week or ten days to find some one that'll take it. They can't git 'em! Ain't easy work, either. You're like everybody else that works on a railroad. All the other fellows got a nice, easy job. I've heard 'em all talk. Never heard one yet but what thinks he's got the worst of it, and everybody else's got it better 'an him."

"When eny one tells me watchin' a street-crossing is a nice easy job, I ask 'em did you ever do any of it? They say no, they haven't, but they seen it done. Then I tell 'em it's always easy seein' things done, and that they got the wrong answer, and to guess again. No, sir! They couldn't fill our places."

"You see, if we'd go on a strike, I'd picket. I'd march up and down and around the crossin' every day while the



HE COMBED HIS WHISKERS INTO A FLOWING LUXURIANCE.

strike was' on, a picketin'! Do you think enybody would want to take this job and scab while I was doin' picket duty right ag'in' him? An' then the company 'ud git soaked every day they wasn't a watchman on duty. Before a week, they'd be ding'd glad to arbitrate, an' we'd all git a raise."

Hiram chuckled as if the whole campaign had been undertaken and triumphantly pulled off.

"Ain't everybody can watch a crossing, and do it as it ort to be done," Hiram continued. "I've been right here six years, and

I got a system. They wasn't eny system when I come here. It was two or three years before I got the people educated to my system."

"You can't watch a crossing by just posin'. You can't stand out there like one of them mile-posts. You got to move about, and see what's comin', and calculate velocities, and then motion 'em over or motion 'em to stop."

"My idea was to teach 'em all to depend on me—to watch me. Not to rubber up and down the tracks theirselves, but to keep their eyes glued on me, and I give 'em the sign what to do."

"I know about all the teams, and about everybody that drives acrost. And they all know me. They've learnt my system, and they watch for me to motion 'em. They all depend on me."

"At first they didn't pay eny attention to me, but when I'd go up and grab the horses by the bridle, they begin to take notice, and soon they was understandin' that here's a man that knows his business."

The switch-engine returned with a string of cars, and Hiram sauntered out

with his white flag to stand guard-until it passed.

He returned to the shanty with a sprightly step. He took off his old cap and substituted a respectable derby. Then he stood before an unframed fragment of a mirror tacked against the wall and combed his whiskers into a flowing elegance.

Then he strode briskly forth to the middle of the street again, and assumed, as I thought, a rather heroic pose.

There was no train in sight, but I heard the rattle of an approaching vehicle.

It came to a stop at a safe distance from the track.

The driver was a red-cheeked woman of fifty-five or sixty, and driving a cart loaded with the products of a truck-patch.

Hiram craned his neck in both directions up and down the track; then, stepping nimbly aside, called out: "All right, Mrs. Doud; come acrost!"

"Thank you, Hiram," said the woman, smiling expansively.

Hiram lifted his stiff hat and bowed a Chesterfieldian acknowledgment.

"That was very neatly done, Hiram," said I, when he returned to the shanty. "Still, I don't see why you should have been so overcautious."

"That's Widow Doud," said Hiram, with a sort of sheepish apology. "She kind o' depends on me. She don't like to go over unless I tell her it's all right. It's part of the system I've built up of cross-in'-watchin'."

Hiram took off his stiff hat and hung it up on the hook very carefully. Then he put on his old cap, and eyed himself in the glass critically.

"You wouldn't take me to be sixty-five, would you?" he asked rather abruptly.

"Why, Hiram," I replied warmly, "you don't look a day over fifty. This kind of a life agrees with you. You are good for an even hundred on this job."

"Maybe so," said Hiram; "but sometimes I git an idee I'll quit it. I git to thinkin'— That Doud woman ain't bad-lookin', is she?"

This sudden and seemingly irrelevant turn of the conversation took me by surprise.

"Why, no, Hiram," I acknowledged. "She's a little broad across, but she has a pleasant face."

"She's a widow, and she owns a thirty-acre truck-patch down on the river bottom. They tell me she makes three or four hundred dollars a year on it, and



J. NORMAN LIND

does all the work herself. That's a nice business—truck-patchin', when you reduce it to a system."

Hiram parted his whiskers in the middle, and gave them an artistic brush on both sides. Then he went on:

"I wasn't on this job more'n a week but who should drive up but Mrs. Doud. They hadn't been eny system in runnin' this crossin' before then, so she didn't pay eny attention to me, even when I made a motion for her to stop.

"The local was just about to back out from the freight-house track, but she never stopped; so I just steps up in front of her old gray horse, grabbed the reins, and brought it to a standstill all of a sudden.

"The woman had just gotten up out of her seat, and was kind o' leanin' over to see for herself if eny train was comin'. When I yanked the horse, she just went on out over the dashboard and lit on her head.

"When she got up, she was madder then thunder. She chased me around that vegetable wagon three times before she got out of breath. I tried to reason. I said: 'Madam, they's got to be system to this crossin' business!' Then she just hauled off and smashed me right in the eye with one of them ripe tomatoes of her'n. That riled me somethin' fierce, and we had a heated argument right there. A big crowd gathered round to hear it.

"More'n a year that woman wouldn't look at me. Finally, when she got to understandin' the system I had in runnin' this business, she come off her perch, and we've been good friends ever since."

I assured Hiram that in every department of railroading it is a hard struggle to make people understand and appreciate the things we do, and the provisions we make for their safety; but that persistence and good nature would, in the end, win, and that, when once educated, they are thankful to us for our efforts in their behalf.

"That's so!" exclaimed Hiram with enthusiasm. "She is! She's told me so! She's told me that maybe I saved her life that time."

"How long have you been a widower, Hiram?" I asked by way of injecting a little human sympathy into the conversation.

"Ten years the tenth of last March. This crossin' job ain't so bad for a single man. I've salted away over three hundred dollars since I've been here. Groceries air all-fired high now, ain't they? Do you think two could live about as cheap as one can board?"

Hiram didn't wait for an answer to that one, but made haste to add:

"What you're speakin' about is right. It's hard work to make people come to your way of doin' things. They's a fellow that drives a mule team for the rubber works that don't want to pay eny attention to me. Some day he'll git his all right!

"Then they's a young fellow comes along here every once in a while in a big red automobile. He's a smart Aleck. If No. 21 would just toss him over into the next county some day, they wouldn't be eny regrets from yours truly.

"They's some drivers that ort to git it. They don't care themselves, and they ort to be smashed up once in a while, and that would help us to keep others from bein' too risky."

No. 76 whistled for the station, and I walked out with Hiram to the middle of the street.

A quarter of a mile away a red automobile was headed toward us and coming at a merry clip.

"That's him!" exclaimed Hiram excitedly. "That's that young upstart, and his red devil I was tellin' you about. I'll git him stopped this time all right, 'cause 76 is comin'. He's got to stop. While he's waitin' for 76 to pull over, I'll let him know they's got to be some system to this hereafter."

It was a question which would arrive first, 76 or the auto. Both were racing steadily forward.

It did not matter to Hiram how the race appeared. He had but one idea, and that was to stop the auto and upbraid the young fellow good and plenty for past recklessness.

Hiram went through furious gyrations with arms and flag.

I noticed the young fellow bend slightly forward and put on a little more power.

By this time Hiram was whirling around like an air-motor in a hurricane, and yelling-warnings at the top of his voice.

There was a sort of swish and a zip and a red streak, and Hiram picked himself up twenty feet away, whither he had spun like a monorail gyroscope.

Hiram shook his fist at the vanishing destroyer in impotent rage.

"Hang him! I'll git even with him!

tions himself immovably in front of the waiting engine, and they who pass slowly by—mourners, near mourners, and the friendly curious—know that he would be prostrated and mangled before he would allow the engine to break the impressive rhythm of the procession.



HIRAM HAD DEFIED THE SYSTEM.

I'll steer him in front of the limited! I'll lead him to it! I will—so help me!"

"No use, Hiram," said I, in mollifying tones. "That fellow will never stop to give you a chance. He's one your system can't touch."

There are moments of pride and importance in Hiram's duties.

When a funeral cortège approaches, he takes down his red flag and holds up the railroad traffic until the last carryall of the long line has moved solemnly across the track.

He poses a little in this act. He sta-

It pleases Hiram that the engineer, conductor, and other members of a train-crew recognize him as they pass and give him the railroad salutation—a wave of the hand.

He doesn't know any of their names, and he doesn't exchange a dozen words a month, but they know him, and he knows them.

"That's one thing I'd hate about quit-ting this job," he said to me. "I got so many clost friends on the road. I'd hate to leave 'em."

He has a bit of lawn surrounding

his shanty, which he has given a gardener's attention for many years, and which is trim and clean as a velvet carpet.

Mrs. Doud, surveying it from the comfortable vantage of her vegetable-cart, complimented him on its neatness.

"These surroundin's make a man kind o' sentimental about quittin' a job that he's took a pride in so many years," said Hiram. "But I'm gittin' to an age where I got to begin to figure on something ahead. I've got to look out for Hiram a little, sentiment or no sentiment."

He paused reflectively, then added:

"Meat's awful high. I was readin' in a paper the Pullman conductor throwed off to me the other day that the Secretary of the Treasury or Interior, or Commissioner of Patents or Pensions, or some one high up, says it ain't goin' to git eny cheaper for a good many years.

"Then, thinks I to myself, thinks I, if meat keeps so high, people will haft to eat vegetables. Now's the time to go into the vegetable business. Future looks good for truck-patchin'."

"Go to it, Hiram," I said encouragingly. "Opportunity knocks but once on the dog-house door. He's been a long time finding you, but at last he's tapped. Arise and follow!"

It was not a great while after that

there was a new watchman at the Main Street crossing, and Widow Doud's vegetable cart, with a new driver, approached from down the street.

No. 21 whistled for the crossing.

The new watchman got out into the middle of the street and waved his white flag once or twice in a listless sort of way.

The new driver of the vegetable cart gave his horse a cut, and came spurting forward, entirely ignoring the watchman.

The watchman grasped at the horse's bridle, but the driver, with an explosive command, laid on the whip so vigorously that the horse broke away and lunged forward.

The reader may recall what our reminiscent grandmothers tell about the shooting stars of 1833. This time the pyrotechnics consisted wholly of turnips and cabbage.

Hiram wasn't hurt much. He picked himself up before the bystanders got to him. He shook his fist violently at the new watchman.

"Look what you done! Don't you think I know this crossin'? If you hadn't laid your hands on the horse, you dinged muttonhead, I'd a got acrost and 21 wouldn't a hit me! I'll report you, I will! You'll git yours!"

Hiram had defied the system!

Isn't that human?

STARTLING RAILROAD STATISTICS.

THE most marvelous array of statistics presented for some time past was that offered by the Bureau of Railway News and Statistics. These figures are so stupendous that one can scarcely comprehend their real meaning as they stand in orderly rows, divided into groups of three by portly commas. Figures are mounting up so rapidly nowadays that the statisticians have to keep on hand an ample supply of ciphers.

In ten years, nearly seven billion people were carried by the railroads of the United States, and in a single year, 1908, one and one-half billion tons of freight were transported over the shining rails from one part of the country to another.

The weight of the individual locomotives has increased 115 per cent, and the number 75 per cent, there being now almost 57,000 puffing over the United States. The increase in the capacity of freight-cars has been approximately 120 per cent, making their present carrying capacity more than 71,000,000 tons.

Perhaps the statistics giving the number of railroad employees are the most impressive; nearly a million and a half people, an increase of 67 per cent, are now on the pay-rolls of the United States railroads, drawing a compensation of a billion dollars a year, an increase of 110 per cent over ten years ago.

Theories are all right, but blue-prints build no bridges.—Growls of the Construction Foreman.

A HEART OF THE NORTH.

BY GEORGE VAN SCHAICK.

Pierre Meets Anne Marie, and Learns Why There Is a Great Tragedy in Her Life.

CHAPTER I.

The Upset Canoe.



HE roar of great falls began to boom through the mist of the morning, and became louder with every stroke that sent the birch canoe lustily up-stream. Great boulders lined both shores, and beyond them, in hazy faintness, rose the serrated line of the forest-trees.

To Pierre Ferguson there was music in the drip of the paddle, in the tremulous sigh of aspens, in the song of the dark water as it rushed by him, deep and dark, bearing great ragged flecks of foam.

The crashing of the cataract came nearer, and the water whitened with the spume that was whirled in great eddies. Then the man saw the place where the portage began. It was a sandy spot, nearly at the foot of the falls, whose heavy spray blew over it.

Near it was an old camping-ground, surrounded by rotting tent-pegs and brown with the dead successive layers of rusty fir-boughs that had formed the bedding of previous voyagers. Charred ends of logs marked the site of the fires that had been lighted there.

A stroke of the paddle brought the canoe along the side of the tiny beach, and Pierre stepped ashore, preceded by his dog, a rough Irish terrier that began to search at once for a possible hare or squirrel, barking in delirious joy at the number of lovely smells he alone knew how to enjoy.

In the meanwhile, his master began to empty the canoe of its contents. There

were several large water-proof bags and a smaller one, holding an aluminum cooking outfit. The fishing-rods, which were lashed to the side of the canoe, were allowed to remain there; but the gun, in its canvas case, was carefully placed on the bags.

Two paddles were crossed amidship of the canoe, and, bending over, Pierre brought it up until it rested upon his knees; and then, with a slight effort, lifted it upon his shoulders. A small tump-line fastened to the cross-bars was fitted upon his head, well forward, partly on the forehead.

With the left hand he steadied the canoe and with the right picked up the gun, and, whistling to his dog, began the journey over the faint trail of the portage.

It first led him up a sharp hill, covered with stones and of uncertain footing; and then down an incline into a swampy bit where his high moccasins sank deep into the soft black ooze. Then once more into the woodland, where the path twisted around great mossy rocks and fallen trees.

To the right he could hear the rapids, hidden by the dense growth of birches and alders on the bank. The dog was busily exploring nooks along the path, which soon came out upon some burned land, where the solemn ghosts of great trees projected, twisted as if in pain, their gnarled black limbs, fantastically like strange, living forms, apparently sorrowing in the bleak solitude over the graveyard of the once hale forest.

But the *brulé* was soon passed, the tall green growth again reached, and a glimpse of dark, placid water showed ahead.

Suddenly, from up the stream, there was the loud crash of a gun, reverberating among the surrounding hills, and, after a brief interval, a loud, shrill cry of distress.

It was a woman's voice, and Pierre, throwing the canoe into the bushes along the path, ran on, still carrying his gun, leaping over fallen mossy trunks, sinking in black ooze, tearing through the dripping bushes that met over the portage.

He dashed out of the woods upon a sandy point jutting out into the river, perhaps a hundred yards above where the water began to boil, and saw that a woman was being carried down the stream toward the boulder-strewn white torrent in its rush toward the falls. Once or twice her head sank under the swift water as she lifted up her arms.

One glance farther up, before he leaped in the river, showed him a great bull moose that was struggling amid the wreckage of a canoe, with which the mighty beast seemed to be inextricably mixed up.

Pierre was seized at once by the strong current. With all the strength he had he swam toward the passing woman; his fierce strokes soon brought him to her, and her long black hair met his grasp.

Then came the fight for two lives, and there was a lust in it, a fierce development of a passion of struggle, such as seizes strong men in the hour of strife.

Inch by inch he neared the shore, foot by foot the white water drew him toward the rapids. It tore at him and clung to him, and pulled savagely and struggled for the possession of his burden, as though maddened with a longing for the blood of men.

He sank several times and emerged, gasping, yet always battling fiercely. When one of his knees struck the bottom his breath had become a hoarse gurgling, and his strength was ebbing away. Farther on in the more shallow water he managed to regain his feet, and the weight of the woman, whom he had taken in one of his arms, helped to steady him, while the water boiled around his legs as if seeking to tear him away.

Thus he made his way to the shore, now bearing the burden easily in the exultation of a fight that was won.

When he reached the sand-bar he de-

posited the half-drowned creature on the sand, and it was only then that he perceived another human form lying prostrate upon the rocks, higher up the river and partly submerged.

The moose was still there, struggling, and he rushed to the place where he had thrown down his gun, tore off the cover, and at the crashing of the smokeless cartridge the great animal dropped heavily among the torn birch strips and broken cedar ribs of the canoe.

Running up, he found an old Indian, who had partly dragged himself out of the water upon the rocks. As he pulled him out he noticed that one of the legs was twisted in an unnatural position, and the old fellow groaned with pain.

As he seemed to be breathing naturally, Pierre placed him with the head and shoulders resting upon a fallen tree-trunk and ran back to the woman.

She had partly raised herself, lying upon one hip, with her hands resting upon the sand before her, breathing with difficulty. She looked up as Pierre bent over her, and spat a mouthful of blood before speaking.

"Is he dead?" she asked in her familiar French.

In French he reassured her, telling her the man was living, but adding that he looked very ill.

As he knelt by her, she stared at him.

"The Manitou-ilno told of the white man," she said, seeming to speak to herself, "and there is the little yellow *ad-dom*," as she saw the terrier, who, in great excitement, was attempting to caress his master.

She made an effort to get on her feet.

"Let me carry you," he said.

She shook her head and arose, painfully and slowly, with his help. Holding her hand to her right side and biting her lip, with Pierre's arm under hers, she began to walk toward the old man in silence; her short, gasping breathing painful to hear. They reached the fallen tree, and she attempted to kneel by the prostrate form; but her strength was exhausted, and she collapsed by its side.

Her long black hair, bedraggled and full of sand, partly fell over a dark face of pure Indian type. She wore a man's coat and a long skirt of some cheap woolen material. On her feet were the

high boots of the savage. She seemed slight of build and of middle size, Pierre thought her age must be about eighteen.

The old man was grizzled and bent, and bore the marks of a hard life. A trapper of the old days, before there were sheet-iron stoves, provisions, and goodly advances from the fur posts, he had known the meaning of hunger and of biting cold, the peril of blizzards and storms on great lakes. Now he seemed to be broken and apparently nearing the time of farewell to the toil of living.

Matters had to be straightened out as soon as possible, and for the next hour Pierre worked like a beaver. Neither of the Indians appeared able to speak, and he decided that in order to do any good he would have to get his supplies.

Going to the shore where the moose lay dead, he found that one leg of the great animal had gone through the bottom of the canoe that had clung to him by the spring of the cedar ribs.

A great jagged wound in the paunch showed the Indian's shot, while a smaller one just back of the foreshoulder marked his own. One or two bundles that had been placed under the cross-pieces were still in the canoe, and he dragged out a tent that had been wrapped around a small sheet-iron stove and some blankets with a bundle of traps.

Everything else had evidently fallen into the river and been washed away down the rapids and over the falls, or was being ground to pieces upon the rocky bottom.

He then ran down the portage, hindered by his wet clothes, and returned, bearing two of his bags with the tump-line passed over his forehead.

The first thing to do was to start the kettle boiling; and then he covered the Indians with his own warm blankets, hanging their own to dry. He managed to make them swallow some strong tea; and then returned for the rest of his things, leaving his canoe where he had thrown it. On his return he found that Paddy had remained near the girl, and was licking her hand with the nursing instinct so strongly developed in some dogs.

Taking the ax, Pierre quickly chopped down some saplings for pegs and tent-

poles, and soon had the Indians' tent set up. Once more he went into the woods and returned with a great load of balsam-boughs, neatly packed on the handle of his ax, and proceeded to make a good bed.

The old man was groaning at times, in a low, resigned manner. He was given another drink of tea, and the young man then decided that the injured leg must be treated.

He slit down the high moccasin, which was nearly full of blood, and then cut through the heavy woolen stocking, and saw, to his dismay, a sharp piece of bone protruding through an ugly wound over the shin. This he washed with water boiled in the kettle.

Pulling hard upon the foot caused the bone to return within the cut, which he covered with a linen handkerchief which he wrung out of the boiling water. Then, after much cogitation, the whole leg was bound up with ingenious splints, in which the broken blade of a paddle, some birch-bark, and strips torn from a blanket played a prominent part.

During all these manipulations the old man had given some signs of suffering; but generally seemed to be apathetic, as if under the influence of great shock; and as Pierre carefully lifted him and bore him to the tent, the poor old body was very limp. It took a few minutes to remove his wet clothes, and the young man wrapped him in blankets. Then he turned to the girl.

"Let me carry you to the tent," he said. "You are shivering in this cold wind."

But she refused again to let him help, and rose with difficulty. In pain she pressed both hands to her right side and entered the tent. She glanced at the old man, now resting quietly, and looked at Pierre with a shy expression of gratitude.

"It is good," she said. "Thanks."

"Now let me see what the matter is with your chest," he suggested, after she had lain down.

But she waved him away impatiently, her cheeks flushing red, and he had to speak authoritatively, declaring that he was a doctor. This was not quite true, for he had only a few years before attended one course in medicine at Laval University.

He was sprung from masterful people, however, and finally gained his way, the girl faintly defending herself as he proceeded to remove some of her dripping clothes.

It took him but a short time to decide that at least two ribs were broken.

He went out of the tent and began to dig in one of his bags, from which he pulled out a little box, in which some things intended for use in case of emergencies were kept, and took a roll of adhesive-plaster.

He used it nearly all in a fairly correct manner, dressing her hurts so that the movements of the injured side might be well restrained.

But during this time, with her chest nearly bare and a red flush upon her dusky cheeks, the girl, obedient yet full of revolt, her modesty outraged, feeling that she was forced to submit, suffering while realizing that good was being done, looked at him with great dark eyes, in which surprise, pain, and resignation were all shown.

But Pierre did not look at her. He was busy, and to him she was but a suffering thing, whose misery he must relieve as soon as possible.

He finished his work, and brought out a heavy flannel shirt, which he passed over her head and put on her, and then his own coat.

"Try and take off that wet skirt," he said, "and wrap yourself in the blanket. You're shivering now. I must go and look after that moose."

He went down to the shore, where the dead animal was lying partly in the water, which made it easier for him to turn it while skinning, as it was nearly afloat.

He first went to work to remove the head for preserving, thinking he might be able to take it back with him for the taxidermist. Then, the antlers were very good, and he estimated that they were well over fifty inches wide. In about a quarter of an hour he gave the last stroke that severed the head from the spine. The really important thing was to save as much of the meat as possible. While he labored with sheath-knife and ax he pondered over the situation.

Chance had thrown under his care two poor devils, neither of whom might probably be able to travel for a long time.

Their provisions had evidently all been lost when the canoe capsized. Without his aid, they would certainly have been in an awful predicament, badly hurt, with their canoe staved in beyond repair, food all gone, and their gun at the bottom of the river.

The girl did not seem to be in a very bad condition—she was such a sturdy-looking little "savage," notwithstanding her apparent slenderness. He had noticed that the muscles of her arms and shoulders were those of an athlete—graceful and strong. But, then, this spitting of blood was annoying. Could consumption, as with so many of her doomed race, have spread its grasping claws upon her?

With his fragmentary medical knowledge, he managed to recollect that it might point to an injury of the lung caused by the sharp edge of one of the broken ribs. This worried him a good deal, but not as much as the state in which the old Indian was. He had very grave doubts about that case. Compound fractures were bad enough in themselves, but the man was so weak, so prostrated, that surely he must be suffering from some grave internal injury.

As far as Pierre could see, the problem before him was to look after them until they could be left alone—to supply them with provisions, and get back to Lake St. John as soon as possible and send them help.

Now it seemed frightfully far away. From the mouth of the river to Tschotagama there were fifty miles, then over two hundred more to where the Peribonca divided into the Shipshaw and Manouan Rivers.

It was several days' travel up the former—a wild, rough stream, hardly ever used by the Indians, since the Manouan was the direct and easy road to the Grand Lac Manouan, above which were the great trapping-grounds. The matter of provisions was the hardest to solve, and the moose he was now cutting up would have to be their chief source of supply.

If the girl grew worse instead of better, the problem could hardly be solved. He could not expect to meet any parties of Indians even after reaching the forks of the river. The trappers who winter in the upper reaches of the Peribonca had

all gone up several weeks before, he had been informed, and the great river would be deserted.

All he could do now was to cure moose meat and smoke fish for them, to assure their subsistence until assistance could be procured. His own supplies had been calculated to last eight weeks, of which four were nearly gone, but with care they would help a good deal.

So he hacked away at the great carcass, most of the time up to his knees in water, and hung great lumps of meat on a pole under which a poky fire was lighted, to save them from the attacks of meat-flies. Toiling as never before, for the first time during his trip he regretted the impatience that had caused him to take this long journey without guides. After he had finished cutting up the moose he divided the great pieces in smaller strips, and built a staging of branches upon which they were placed, over a great *boucané*.

Grimy and wet and smeared with blood, and soiled with the rotten wood he kept gathering for his smoke, he labored on, scarcely feeling any fatigue, knowing that he was now fighting for lives, and that all that had occurred before had been tantamount to play.

Several hours passed thus, interrupted by frequent visits to the tent, and it was nearly dark before he decided to stop work, having packed most of the meat in one of his big water-proof bags. He intended to take it out and smoke it again on the morrow. It would be mighty poor food, from a civilized standpoint, but would serve well to sustain life.

He went up to the tent again, glad to put his hands in his pockets and to suck away at his pipe, for he felt weary.

"How is everything?" he asked.

The old man hardly seemed to notice him. A queer, vague smile crept over his features, and one of the hands moved uncertainly; then he relapsed into the state of indifference which, to the young man, seemed ominous. The girl, with a certain shy sullenness, said she thought her father was very ill.

"I hope he will get over it," he answered. "He is very old, and it will take a long time before he is better. But how are you feeling now? How is the pain in your side?"

The energy of her youth and the impassivity of her race did not permit her to acknowledge how much she suffered. She said she was all right; but her quick, catchy breathing, and the expression she could not conceal, belied her words. She seemed to be lying in an uncomfortable position, and Pierre knelt by her, gently raising her head, and adjusted the fire-boughs with a deft hand. She had thrown some of her wet clothing upon the ground, and he took it up and hung it to the ridge-pole to dry.

Supper was the next thing to be attended to, and the teakettle was soon hanging over the brisk little fire. Pieces of moose meat were boiling away in the cooking-pot, and he fried some slices of bacon.

The dog looked on these proceedings with much interest, licking his chops and eying his master patiently, wagging his stumpy tail, and whining from time to time. A search of the provision-bags revealed a good part of a loaf of bread, which Pierre had baked in the sand the day before.

He was crouching by the fire, shading his face from the heat with one hand, while he held the stick he had fastened to the handle of the frying-pan. The girl could see him from where she was lying, and she wondered.

She believed all that the priests had told her at Roberval, and knew that they said that the practises of the Manitou-illos, the sorcerers, were sinful and unholy; yet they did wonderful things, and one had told of the coming of the white man and the little yellow *addom* that had licked her hand.

Who was this strange individual, some of whose clothing was such as gentlemen wear sometimes in the woods, and who had curious cooking things of a silvery metal she had never seen before, and speaking, like the doctors and the priests, in good French, was all alone with his dog?

She could not make it out. It puzzled her. She noticed that when he cut wood he was not very skilful, and that the fire he had made was just a little too big to cook comfortably by. He must have had people do those things for him, at other times, like all the gentlemen that came to that country. She noted that he was

strong and tall, and dimly realized that he had fought like a demon to get her out of the water. He was surely a queer man, with his gentle, pleasant voice, and his masterful way of ordering one to do things, and his boyish manner of playing with the dog.

She sought to rise when he came in with a dipper of tea, but he made her lie down again, with just a motion of his hand. She obeyed, and felt bashful at the idea that a gentleman was waiting on her. She took the hot drink, and some bread and bacon, and the young man was pleased to see that she could eat a little. It was a favorable sign.

He also brought food to the old man—some tea and a cupful of the strong broth from the moose meat, in which he had also boiled a little rice from his provision-bags.

Lured by the insatiable Indian thirst for tea, the old fellow swallowed some of the strong infusion, and appeared to relish it, but would hardly touch the soup or any of the other things. He tried a few mouthfuls, but shook his head gently, in a discouraged way, and relapsed into an apathetic state.

Pierre wondered whether he would like to smoke, and, having found the Indian's pipe in the pocket of the wet coat he had removed from him, offered him tobacco. The old fellow accepted it and puffed away when Pierre held a lighted match for him, but after a few whiffs the pipe fell from his mouth unnoticed.

"The poor old chap must be mighty ill," thought Pierre, who, like every one else, had never seen a live Indian unable to smoke.

He sat down near them in the tent, while Paddy, at his feet, watched eagerly for bits thrown at him from time to time. The young man was hungry as a wolf, and attacked his food almost as ravenously.

While eating he began to question her.

"What is your name?" he asked in French.

"Ou-memeou," she answered. "But, no—it is Anne Marie, I was baptized."

"What does Ou-memeou mean?"

"It is the little gray dove, not like Wab-memeou, the pigeon. I am his daughter," and she pointed to the old man.

"You were going back to Lac St. Jean?"

She nodded affirmatively.

"Where were you coming from?"

"From camp, far north, beyond Grand Lac Manouan."

"Why did you come down the Shipshaw instead of the Manouan?"

She did not answer, at first, and finally said it was nearer to their hunting-ground. But somehow he realized that she did not want to tell him the real reason, and went on with his questions.

"I suppose you drifted down on the big moose, suddenly, near the bank, and your father shot quick, and he jumped on you and upset the boat, eh?"

Again she assented with a movement of her head.

"Tell me, how long have you been spitting blood?"

She looked astonished, and shook her head again.

"I do not spit blood," she asserted.

"But this morning!"

"Yes," she answered, and, averting her lower lip, showed him that it had been cut and bruised against her fine white teeth. He felt very glad that his fears were proven groundless, for it simplified matters a good deal.

If she was not consumptive and had received no serious injury to her lungs she would soon be well again and able to care for her father. He sought to recollect how long broken ribs might take to mend, but his memory on that point was hazy, and he could only conclude that it might take a couple of weeks or more.

In the semidarkness, Pierre put up his own little silk tent close to the larger one, and cut up enough wood to last over night. Finding that there was nothing more that he could do for the two Indians he called the dog, that was lying down near Anne Marie, and made ready to enjoy a needed rest.

As the terrier snuggled beside him Pierre looked at him, by the fitful light of the camp fire outside the tent, as he had left the flap wide open, and spoke to him:

"You've taken a fancy to that little savage, Paddy boy."

The dog wagged his tail.

Tired though he was, Paddy's master

tossed about under his blanket for a long time. Suddenly, with a voice full of conviction and marked with a certain bitterness he uttered a sentence which, considering certain fairly recent happenings, was not without a certain tincture of philosophy.

"The deuce take women!" was his remark.

CHAPTER II.

The Blood in His Veins.

BEFORE falling asleep Pierre's thoughts wandered back to lands still farther north and to that ancestor of his, Farquhar Ferguson, beyond whom the family knew none of its forebears.

This first Ferguson was a dour Presbyterian who had wandered to Canada in the trail of the fighters who conquered the country for England. After some years of hard knocks he married, somewhere north of Winnipeg, an Indian girl who bore him a family of four, and made a good wife to him until he was blotted out from among men in a great blizzard.

The inheritance he left consisted in a couple of guns, a fine lot of traps, a tent, and the wages due by the Hudson Bay Company, for whom he ran a small post in the wilderness.

This wealth made the woman a desirable person, and she succumbed to the attractions of a warrior of her tribe, who took in her wealth and her family, knowing that the latter would not long prove troublesome.

The oldest child was a girl, who soon disappeared with a Cree Indian, but the other three, all sons, wandered away over various trails, and the further fate of one only was known, who took to wife a white woman of mixed Irish and French-Canadian descent. His existence ended at the breaking of a log jam on the St. Maurice and his family scattered over the land.

It was known that one of his sons went to sea and was never heard of again, and that another was concerned in the Riel rebellion and had later disappeared after writing once from British Columbia.

Two daughters married farmers and were still living, while a third had become a nun. The youngest son was Pierre's father. Unlike others of his family he had had but two children, of whom one died in Montreal the year of the great smallpox epidemic. Pierre, left an only child, became as the apple of his parents' eyes.

The father had returned from a long journey in the Far West with much gold, which he increased and multiplied in trade, for he had the faculty of smelling out money, just as a mink smells muskrats or fish.

The young man tried for a profession. Medicine was his first choice, but he gave it up after a year in favor of mining engineering, and left this to help his father in his business ventures, for which he also showed a keen nose. From an aunt on the mother's side he obtained an inheritance and bought interests in a pulp-mill, and then in a gold mine in Nova Scotia, which chanced to pay good dividends, and in a fishing venture of Labrador.

Notwithstanding all this, he had considerable leisure which he spent, with an instinct that was probably an atavistic inheritance from the dusky wife of Farquhar, in the woods, where he hunted and fished, and enjoyed the sensation of being drawn toward the North, toward the wild freedom that was to him like a better, purer breath of life.

This particular trip had been taken for two reasons, of which the least was the fact that he had heard something about a proposed railroad to James Bay, in Hudson Bay, and that it would probably pass over a certain river.

Now this stream fell in the Shipshaw, a good day's journey above the point he had reached. An old Indian who had traveled there had described to him, a few years before, something that must have been a very mountain of asbestos. It was worth while looking into, since, if the railroad line passed near it, it might acquire great value.

But the chief reason was that he had met with a disappointment, and at the time felt so hurt and angry that he had run away to the woods for consolation.

His pride had been wounded, for he was young, and no cynic.

The trouble was all over a young lady.

Some days at Cacouna, and others during which he followed her to Tadousac and idled with her a golden week or two, had sufficed to give him the impression that he was madly in love with her. A florid and somewhat vulgar mama, and a father who, considered in the light of an efficient provider, but otherwise wholly insignificant, house-broken, and subject to every whim of his fat spouse and slender blond daughter, did not affect her charms.

She was certainly attractive, and flirted as she breathed, naturally and efficiently.

As the halcyon days floated by, Pierre had become certain that he could not live without her and that he was going to propose. This is a serious matter to a youth who means what he says and believes in the everlastingness of love.

But just before he reached a final decision, a white steam-yacht turned up the St. Lawrence and anchored at the foot of the little cliffs at Tadousac, right at the beautiful mouth of the Saguenay. It bore a splendid-looking youth with much money and a very fetching manner, who was introduced by mutual friends, whereupon Pierre felt himself rather neglected.

This had lasted but a day or two before Pierre, feeling that insensibly his goddess was slipping away from him, decided to cut the Gordian knot at once, and proposed on the veranda of the hotel, one fine moonlit night, while the yachtsman was indoors playing billiards.

In justice to the young lady it should be said that she had never meant to engage in anything but a most innocent flirtation with a very pleasant young man, and felt rather sorry for him. She was very gentle and kind, in the sweetest possible way, manifested a sisterly interest in his future welfare, and made him feel, perhaps mistakenly, that the steam-yacht, or its owner, were paramount in her thoughts.

Men take such happenings in many ways, and Pierre suffered from a sense of humiliation that was at first quite intolerable. He wondered whether there might be about him something uncouth, a remnant left by the slight admixture of Indian blood in his veins, that made him undesirable as a mate

for so intensely civilized and worldly a young woman.

It did not take him long to decide that this was probably not the case, and that he had simply been beaten in a competition for a prize by a man better fitted for that particular contest. He did not dream of the probable truth, which was that Miss Fanny was really in love with no one at all, and simply sought to have as good a time as possible.

Pierre left on the steamboat for Quebec, told his people he was off for Lake St. John, and gathered up his camping things and started on a trip he had planned a year before.

The journey did him much good. There was comfort in the discovery he gradually and reluctantly made, that he was not really wounded very deeply. In fact it took but a few days before he began to feel conscious that the whole affair might be one of those happenings that leave behind them a sense of having made a rather lucky escape.

Strong and self-reliant, thinking he knew what he wanted, he had been too busy to become much of a man of the world, and it was with some surprise that the feeling came that, after all, the whole thing might have been a false alarm, the awakening in him of the desire for loving companionship, but not a disaster that could lead to the shattering of an existence.

For some hours he slept deeply, and then awoke suddenly with every sense alert, as happens to the wild things of the woodlands and to the men whom the wilderness has called.

His last dream had mingled with the sound of voices, and in the tent near by could be heard a low muttering, a slow pouring out of indistinct words, that, at rare intervals, were interrupted by the softer voice of the girl.

Pierre felt chilly, the fire outside the tent had gone out, and one of his blankets had been given to the old man. He rose and decided to make more fire. It was very dark. Great somber clouds drifted heavily overhead, and the noise of the rapids came in a low, booming sound, interrupted from time to time by the song of the night wind blowing through the jagged tops of the Northland trees.

The flap of the larger tent was opened, and Pierre went in. In the darkness, nothing could be made out but the two indistinct forms lying upon the ground, and he spoke in a low voice.

"What is the matter? Is your father worse?"

"He began to speak some time ago, and says many things I do not always understand, and I fear he is very ill," answered the girl.

The young man went back to his tent and found one of the few remaining candles, which he brought to the large tent and lighted.

He knelt by the old man, whose eyes followed the flickering light for a moment. But he soon paid no further heed to it and began again, in a low voice that seemed to reflect all the sadness of the wilderness, to mutter things that were unintelligible to Pierre.

"What is he saying?" he asked.

The girl listened for a moment and said with accents that had tears in them:

"He says that the month of the falling leaves, Uasteshiau Pushum, is coming, and we must not stay long here. He says the morning will be here soon, and I must boil gum and seal oil to mend the canoe. Also, he says, he feels a sickness and is not well, and will not be able to carry a heavy pack to-day, and we must start early."

Pierre lifted the candle until the light fell upon the girl's face. The lids were not quivering over the great dark eyes, and all the features were calm. But great tears were coursing down her cheeks, and she was stricken hard, and bearing it like a brave, strong soul.

He felt that her sorrow was touching, and that her heart was speaking the things which she could not have put in words.

Looking again at the old man he was shocked to see how great a change had occurred within a short time. The muttered words issuing from his lips came faintly, yet with a certain quiet, confident expression, that showed how far away he was wandering through bygone events of a long, hard life, and stumbling through a mental darkness that was mercifully hiding from him the nearing end.

Placing his hand upon the old man's forehead, which he expected to find warm, it was a surprise to feel it very cold and clammy.

Remembering a pint flask of brandy at the bottom of one of his packs, and thinking it might prove useful, he dragged the heavy bag within the tent and gave the candle to Anne Marie to hold, while he rummaged until he found what he wanted.

Pouring some of the liquor in a tin cup, he lifted the old man's head gently, and bade him drink. The sufferer did not seem to understand at first, but finally Pierre made him swallow it.

Under the influence of the strong draft, the old Indian seemed to revive a little. He looked at Pierre and then at his daughter, shaking his head gently. Their faces were illumined by the candlelight, and he appeared to consider them with some surprise, but the vacant look soon returned and, giving a long sigh, his head sank down once more, and he appeared to fall quietly asleep.

Anne Marie looked at Pierre with shy gratitude. Surely this must be a good man who was so gentle with her old father, and she wondered again what he might be, and how he chanced to be alone so far up the great river.

In some way Pierre realized that the girl would not sleep, and felt so thoroughly awakened that he did not think it best to lie down again. He lit his pipe and sat down beside her, in silence, having blown out the valuable candle, but the chill of the night struck through him and brought a shiver.

The little cast-iron stove he had taken from the wrecked canoe was near, with several lengths of stovepipe packed within it, and in a few moments it was rigged up in the tent. After bringing in an armful of wood, a good fire was soon roaring, and it was pleasant to see the little flashes of red light showing through the cracks.

He rapped his pipe on the heel of his boot, put it again in his pocket, and sat down on his bag, near the girl.

"How long have you been awake?" he asked.

"A long time. I think I have not slept," she answered.

"Much pain?"

"Some pain, not very much. But I am afraid; I am much afraid."

She shook her head and looked in the direction of her father. Pierre tried to reassure her, but somehow words of comfort would not come. The fact could not be hidden that he also feared that the old man's life was fast ebbing away. It was hardly possible to deceive her, and the few things he managed to say were unable to bring any change in the tense look of her eyes.

"You must try to sleep," he advised.

But she shook her head; and he did not insist; and they remained in silence within the tent, listening to the occasional words spoken by the old man, who had fallen asleep, but frequently seemed to be dreaming aloud.

From time to time Pierre opened the little stove to put in more wood, and a red glare would become disseminated throughout the tent, to die out abruptly when the door was closed.

Without, there was the great silence of the wilderness, that is always accentuated by little interruptions. The familiar sounds of the night life that never ceases to pulsate recurred at intervals: the splashes of fish leaping on the water, the intermittent distant hoots of a great horned owl, the rising and dying of the breeze, the ill-defined scratching sounds on the gravel and sand of the tiny beach, where muskrats were at play.

All these, whenever they ceased, seemed to render yet more profound the great stillness that, like some weird cover, wrapped the world up in its folds.

Within the tent there was but the sound of the old man's breathing, and of his occasional words, uttered in a very low voice, full of an inexpressible patience and sadness, as of one who bore quietly some great ill inseparable from the hard life of the dwellers in the waste places.

Some hours passed thus, and the girl felt comforted by the presence of the young man. With the blind trust she was beginning to repose in him as a white man possessed of all manner of knowledge that was hidden from her, she felt as if he might, by the mere fact of being there, prevent the dreadful calamity she feared.

Was he not of the same race as the Oblate Fathers who had taught her to read, as the nuns whose very dress seemed

redolent of mysterious things, as the doctors that had power over death and evil, as the rich men who owned the sawmills and the great hotel? What might he not accomplish?

Pierre rose several times during the long vigil. Once or twice he gave the old man another sip from the flask, and replenished the little stove, that burned the wood up very fast. But when the first faint light began to be distinct, even through the canvas of the tent, and while still sitting up, with knees drawn up to his chin that was resting upon his folded hands, he fell asleep, and remained in that position for a long time, until the sunlight showed high above the serrated edge of the woods in the east.

When he awoke with a start the fire in the little stove had burned itself out, and the girl was still watching, lying upon her injured side, her keen eyes resting upon the old man, who still seemed to sleep quietly under the blankets.

"Are you cold?" asked Pierre. "I have slept; why did you not awaken me?"

She shook her head vaguely, and Pierre saw that all her thoughts were for her father. He did not know that as long as he was there the girl was satisfied, since she could call him in case of need, and that she would not have awakened him otherwise; for the sleep of a man, in camp as on shipboard, is a sacred thing, not to be interrupted except for good cause.

Pierre rose with a yawn, but in a few moments was very wide-awake and splashing mightily in the water by the shore, with a cake of soap and a towel lying upon the bottom of his upturned canoe, his shirt-collar drawn down and opened, exposing part of his great chest. The sleeves of his flannel shirt were pulled up as far as they would go, leaving his white, sinewy arms showing in contrast to the brown face and hands he was scrubbing hard.

This over, he took up the ax and, going a little way back in the wood, began to smite lustily, and soon had enough logs for a good fire outside of the big tent, upon which he put the kettle to boil, hanging from a stick driven slanting into the ground.

"What do you think you could eat?" he called to the girl, who was watching him from the tent.

"I am not very hungry," she replied. "If you would let me, I might be able to cook for you. It is the woman's place."

"You just keep still until I let you get up," he answered cheerily. "I'm the cook and everything else until your ribs get mended."

He took great interest in the breakfast, which would be later than usual, owing to that last nap, and often spoke to the dog, who was looking on wistfully and whining with impatience, while his master was sitting upon a big log, holding the long stick he had stuck in the hollow handle of the sputtering frying-pan.

"Look at the dog!" suddenly exclaimed the girl, upon whose face a strange look of fear had come.

Paddy's hair was bristling, and he uttered a low growl as he dashed along the faintly marked path that led over the portage.

He stopped as a tall man made his appearance. The man was loaded with a heavy pack, and walked carefully over the rocks, the great muscles at the sides of his neck bulging with the pull of the tump-line that held up two hundred-pound bags of flour. Both hands were up over his shoulders, grasping the straps and relieving a bit the drag upon his neck.

With the slightest possible motion of his head in Pierre's direction, he kept on toward the landing-place, where he put down his bags with an action of relief, and quietly pulled out his pipe for a smoke while swiftly observing the wreck of the canoe, the marks of the moose-skinning, and the scaffolding erected for smoking the meat.

Then he slowly came up to the camp-fire, addressing Pierre, who had left his seat in the tent and stood before it, with the customary salute of the Montagnais:

"*Quey, quey.*"

CHAPTER III.

The Girl Sees a Fight.

PIERRE repeated the greeting, at the same time handing a plug of tobacco to the newcomer, who pulled his sheath-knife from his belt and proceeded to cut a pipeful.

This done, the man held a bit of birch-bark to the fire and got a light, squatting

on the long end of the backlog, after returning the plug. His complexion showed him to be a *métis* (a half-breed). He was a man of great size and strength, with a low forehead and a taciturn, sullen expression.

Nothing was said for a long time, while Pierre went on with his cooking, and the newcomer took note of the surroundings. The flap of the big tent was down, and he could not see its interior. But the wreck of the canoe, the various articles scattered around, one or two familiar spots upon the tent, taught him a great deal, and finally he grunted, inquisitively, in French:

"Old Michel?"

Pierre only then recollected that he had not asked the old man's name, but answered that an old Indian was within the tent, and that he did not know whether or not he was called Michel.

The half-breed looked at him suspiciously, and spoke again:

"Anne Marie?"

"Yes," answered Pierre. "Anne Marie and her old father. They have both been badly hurt."

He went on, unbidden, to give a brief account of the happenings of the day before, to which the half-breed listened in silence, only grunting once or twice during the recital.

Finally rising and pulling aside the tent flap, the half-breed went in, and Pierre felt that a big load had been taken off his shoulders, for the newcomer evidently knew these people, and would probably be able to help him out.

There was no doubt that he would be willing to remain there while the projected visit to the asbestos-mine was accomplished, a matter of but few days.

Then Pierre could take the girl back to Lake St. John; or, better still, the half-breed could be hired to do it. There was also a possibility that Anne Marie might have friends or relatives trapping somewhere in the North, and that she might elect to go there. The old man, unfortunately, played no part in these plans, for it was too evident that his journey was nearly ended.

Pierre's reflections were interrupted by an exclamation from Anne Marie, and he put down his frying-pan to find out what was the matter.

He was surprised to hear her talking excitedly and angrily, while the old man paid no heed to what was going on around him. The external world seemed to have disappeared from his ken, as with slow, nearly rhythmical motions he kept on picking at the blanket that covered him.

The features, in the brighter light of the morning, showed an even more drawn and pinched expression than on the day before.

The half-breed was listening to the girl with a careless, contemptuous expression, and now and then grunted some reply in the Montagnais dialect. Paddy began to bark again, and Pierre looked out of the tent.

Down the path another man was coming, bearing a canoe poised on his head with the tump-line, while in one hand he carried a goodly bundle of traps. Like the half-breed, he went on to the landing-place and rid himself of his load with a grunt of satisfaction before coming up to the tent. From his darker skin and pure Indian features, he was probably a Montagnais, or perhaps a *Tête de Boule*. He nodded to Pierre and looked in the tent, saying something in his Indian speech.

Anne Marie uttered a low moan.

"What the deuce are they bothering that girl about?" Pierre asked himself impatiently. He had taken an instinctive dislike to the two men, especially the first, and entering the tent, which began to be rather crowded, inquired what was the matter.

At first the girl did not answer. She had partly risen, in a sitting position, and was looking steadily at her old father, who was still monotonously picking away at the blanket, interrupting this now and then with slow rotations of his head, the eyes seeming to follow flying things visible to him alone.

"This man, the savage," she finally answered, without looking up at him, "says that he once saw an old man who did these things just like my father, and he lived but a very short time." She crossed herself and spoke again. "I fear much it is a sign of death."

Pierre's head bent down, and he made no reply, for he had during the long night decided that the end must be very near. Going out to look after his cooking, he again held the frying-pan over

the fire for a few moments, and then poured-out some tea, which he brought to the girl, with food, on one of his aluminium plates.

He felt that he must ask the others whether they would eat. They had undoubtedly broken their fast earlier in the morning, but, Indian-like, would forego no opportunity to feed. The three sat down outside the tent and consumed vast quantities of tea with flapjacks and fried pork.

Pierre had meant to speak to them about such arrangements as could be made to care for the girl, but instinctively felt that something was wrong; that their presence was distasteful to her, and he decided to consult with her first, as soon as opportunity allowed.

The fact was clear that the half-breed was an obnoxious individual. Anne Marie had spoken angrily, and he felt that he was cultivating an intense dislike to him.

The Indian was but an ordinary specimen of his race, strong, short of stature, with an impassive countenance, from which nothing particular could be made out.

After they saw that there was nothing more to eat, the two men rose, said they were going back over the portage for the remainder of their things; and soon departed, pulling away at their pipes and swinging their tump-lines in their hands, while Paddy sniffed at their heels suspiciously.

As soon as they had disappeared, Pierre went to the tent. He wanted an explanation, and it was soon forthcoming.

"Come quick!" Anne Marie exclaimed as soon as she saw him. "Have they gone?"

She was standing. On her cheeks there burned dusky red spots, and her black eyes were flashing. She seemed to be in a passion of excitement, and was trying to subdue it. The hand that was not pressed against her injured side was clenched tightly, and moved tremulously.

"What are you going to do?" she asked eagerly. "Are you going to leave now?"

"Well, I'm sure I don't know," he replied. "I had thought of giving them money to take you back to Lac St. Jean,

or perhaps you would like to go north again with them? Where are they going now?"

"Back to the place we came from?" she replied quickly. "But I won't go with them, either to the south or to the north. I hate them. The half-breed wants me for his wife! I would kill him first, and, if I could not do that, I would rather kill myself!"

She had grown still more excited as she was speaking. Her lips were trembling.

Pierre placed his hand gently on her shoulder.

"Lie down again, Anne Marie," he said. "You may injure yourself with all that excitement. You shall do just as you please. If you won't go with them, there is plenty of room in my canoe, and I will take you back to Lac St. Jean after—"

He interrupted himself suddenly, but she took up his words.

"After my poor old father is dead. Yes, I know he cannot live. I will go back with you, if you will be so good—but how can I? The half-breed will not let me."

"I don't see how he can prevent you," exclaimed Pierre. "You say he wants

to marry you, and that you hate him. He can't marry you against your will. Do you mean that there's going to be a fight?"

The young man was beginning to feel rather belligerent. He disliked the half-breed's looks, and sympathized with the girl's feelings sufficiently to make him ready to take her part.

"A fight!" she exclaimed. "Yes, he would fight, but he would rather do some treacherous thing! I don't know what he will do."

Exhausted by the excitement, the girl sank down again upon the blanket under which she had been lying, and looked at Pierre as if hoping that he could suggest some way out of the trouble. He stood there, wondering what kind of a mess he was getting into.

"Tell me all about it," he suggested. "I can't help you until I know what the row is about."

"Yes, I will tell you. Sit down just outside the tent so that you may watch the portage and see when they return. He is very suspicious. He must not see us talking too much. I am afraid he will do you harm. He will do nothing while my old father is living, but afterward—who knows?"

(To be continued.)

LOAFIN' 'ROUN' DE DEPO'.

JUS' a loafin' 'roun' de depo', lis'enin' ter de sweet refrains

Ob de "ding dong" en de "toot toot," made by dem dere "chu chu" trains.

Banjo make de sweetes' music, w'en hit's 'comp'nied by guitahs;

But dere music ain' a patchin' to dat ob de "chu chu" cahs.

Like ter lounge upon de platfo'm, lub de rum'lin' noise en din;

Like ter watch dem big black engines pullin' out en pullin' in.

Lub de brakemen and conductohs wid dere caps en buttons bright,

Swingin' ter an' fro dere lantu'ns, makin' signals in de night.

Folks a comin' en a goin', sayin', "goo'-by, how-de-do";

Mos' ob dem a lookin' chareful, en dey's some dat's lookin' blue.

Waitin'-room is nevah empty th'u' de night en th'u' de day,

Folks is allus dere a waitin', fer de train ter take um 'way.

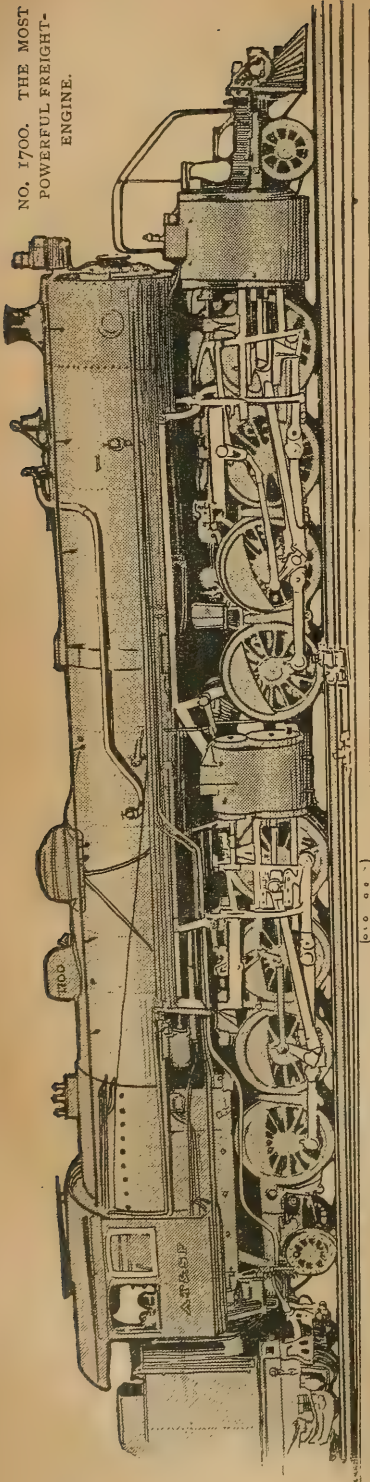
Dat fah 'way look in dere dreamy eyes dey sit 'roun' en pondah;

Dey ain' thinkin' 'bout things dat's near, dere thoughts is 'way off yondah.

Jus' a loafin' 'roun' de depo', talk er-bout yo' life sublime,

Dat ain't in hit wid jus' loafin' 'roun' de depo' all de time.

—JOHN AUSCHUTZ, in *Exchange*.



A New Freight Giant.

The Heaviest and Most Powerful Locomotive of Its Type, for Use on the Santa Fe.

THE Baldwin Locomotive Works recently supplied the Atchison, Topeka and Santa Fe Railway with two passenger and two freight locomotives, which are the heaviest engines thus far built for their respective classes of service. While differing greatly in their proportions, the two designs are alike in principle, and have many features in common.

The engines belong to what is known as the Mallet articulated type, first introduced abroad, in the year 1889, by M. Anatole Mallet, a noted French engineer. In the Mallet locomotive, the driving-wheels are divided into two groups, and there are four cylinders, two of which drive the rear group of wheels, while the remaining two drive the forward group. The cylinders are arranged on the compound system; that is, the steam is first used in the rear, or high-pressure cylinders, and is then passed through the front, or low-pressure cylinders, after which it escapes up the stack in the usual manner.

This arrangement provides a locomotive with a large amount of weight on the driving-wheels, but the wheel-base, or distance between the front and back wheels, is necessarily long. Therefore, to enable the locomotive to traverse curves easily, the front frames are pivoted to the rear frames.

The forward group of wheels is thus able to swing laterally, and the engine traverses sharp curves as easily as a locomotive of the ordinary type.

Locomotive No. 1700 (shown in the illustration) has driving-wheels 63 inches in diameter, and weighs, without its tender, 462,450 pounds. This is the heaviest engine thus far built for any railway, and its total weight, including the tender, is approximately 350 tons.

The tenders of both locomotives are similar, and are of exceptional size. Each is carried on two six-wheeled trucks, and has capacity for 12,000 gallons of water and 4,000 gallons of fuel-oil.

The boiler is 7 feet in diameter, works under a pressure of 220 pounds, and has a total heating surface, including the feed-water heater, of 6,631 square feet. There are also 1,745 square feet of superheating and reheating surface.

There are two high-pressure cylinders, 26 inches in diameter by 34-inch stroke, connected to eight coupled drivers, 63 inches in diameter, and two low-pressure cylinders, 38 inches in diameter by 34-inch stroke, connected to eight coupled 63-inch drivers. The pull on the draw-bar maximum power is 54 tons.

It is no exaggeration to say that these locomotives mark a new era in American locomotive practice. And we beg the reader to turn to the article, "Progress in Locomotive Building," in this issue, in which this great subject is treated at length.



"WHICH ONE OF US IS THE GUILTY PARTY?"

THE STOLEN TEN THOUSAND.

BY D. C. FREEMAN.

What Happened on the Night That Denver
Joe Made a Haul in No. 47, the Hoodoo.



UT of the despatcher's office at the barns came Shorty Saunders, looking so sour that they all smiled at him. Half a dozen of the boys who were just taking out their cars for the rush hours greeted Shorty with varying expressions of cheer. He had just been removed from the waiting-list following a long, enforced lay-off imposed by the superintendent for a slip of duty.

"Well, Shorty," they cried, "you're 'on again, off again,' eh? What's the luck? Guess you won't be getting any more 'oversleeps' for a while."

Shorty glumly shook his head. "That chump's sure got it in for me," he burst out. "He's given me the hoodoo for the owl hours on Thirteenth Street. I call that tough on a man who's had to stand a lay-off, and the kid and the missus both sick."

"Oh, well, Shorty, you know the best of men have to go on the carpet now and then. Did they hand you a hard bunch?"

"So-so. Old man said I took too many chances. I told him, as they hadn't put air-brakes on 47, the old hoodoo would get into a smash-up that would cost something before they threw her out. Hanged old trap! I wish she'd go over the bridge

into the river some night. You wouldn't see me on her if it wasn't a case of having to."

Peters and Williams started to pull out. "So long," they cried at the doleful motorman. "Keep an extra bucket of sand aboard, and watch her on the crossings—maybe she won't be your funeral yet."

Car 47 was in bad repute with all employees of the C. and S. Every man in the service was familiar with her seeming inanimate devilishness, and they strongly disliked to have anything to do with her.

The feeling was shared from Bozzon, the big Boer boss of the barns, up to the office of General Manager Phillips. Her career was marked by pranks—destructive, expensive, and unaccountable. In the office of the general manager, the offenses of the "queered" car had brought things to such a pass that whenever 47 appeared in the reports it meant a wreck.

Her reputation for mishaps, and for hurting her motormen and conductors, too, dated back to the days of the single-truckers and the old rheostat. With the passing of the bobtails came the extension of the urban lines fifteen miles into the country, and 47 was one of the first double-truckers, but there always seemed to be some misfit about her.

She celebrated her initial run on the new double-tracked balloon route by bumping into a damage suit in which the company was bumped for seven thousand dollars. The complainant was a pedler of sauerkraut and home-made vinegar, pity for whose condition and calling and racked constitution led the jury to render a verdict which jarred the company considerably.

In that instance the motor controller got stuck, and could not be shut off in time to prevent the collision.

With all her misfortunes, 47 bore a charmed existence, even passing through a big fire practically unscathed, while many modern new cars were destroyed.

In the press of business and shortage of cars, 47 had to be brought out for extra duty.

One Friday—it was the thirteenth day of June—47 unaccountably got the bit in her teeth and ran away with a new motor-man. She dashed down the steep grade of Sycamore Street like an arrow from a bow.

At the foot of the hill there was a sharp curve. A block straight beyond this curve, and below a forty-foot embankment, ripples the river. Car 47 cut a swath through Widow Maloney's garden, demolished the fences, and—stopped on the very edge of the bank, amid a shower of dirt, broken glass, and twisty splinters.

Chris Knudson, a giant in stature, held the brakes until the brass handle was bent. He was the last man taken out, powerless to utter a word, and fit after that for only flagman's duty.

After that, 47 went into retirement; but when the demand for cars was strong again, forth came she in fresh paint, and with the marks of her last trouble covered up. They did not think, however, to change the number.

The repairers readjusted the trucks and installed a motor that would roll her along at eighteen miles an hour. She toted her thirty dollars a day's worth of human traffic for a month. Then she left the track and destroyed Popcorn Jimmy's little mint near the ball-park, for which the company paid roundly.

John Nancy was sent out with 47 and a trailer with a picnic crowd, and the hoodoo scared a hundred people into teetotalism on the way home by trying to peel through the span braces of the bridge.

Nancy declared his ultimatum. He had worked a controller for fifteen years, and he said if he was ordered out with 47 again he'd quit the service and go to ranching it.

Shorty Saunders wished from the bottom of his heart that he could likewise have asserted his independence. But he could not. Through no particular fault of his own, he had been in some little trouble; he had had to suffer the penalty of a long lay-off, while at home there was an instalment indebtedness doubling up on him, and the missus and the kid both sick for a time.

Shorty felt that Skinner should have given him a decent run, along with the other old men of the service. Shorty was ambitious, and wished to rise to the dignity of a place upon one of the elegant new coaches of Pullman pattern with a long run, automatic brakes, compressed-air-whistling apparatus, and everything else to make the life of the man on the front end ideal.

Life on the vestibuled suburban appeared to Shorty to be one unalloyed dream of delight. There was better pay in it; overtime was profitable, and there was less danger of collision than in the down-town district. To be set back twisting the old-fashioned ratchet-brake on a dead little cross-town stub branch was heart-breaking.

Although Saunders remonstrated gently to Superintendent Skinner, and represented that he was entitled to better deserts, having served three years, the super was not impressed.

"You've got no kick," the cold-blooded Skinner growled. "We've given you a nine-hour run, and it's dead easy. I can't give everybody a new car. I want to see if you can keep 47 on the track until we can get 114 out of the shops. Then I'll see. Take the run, or leave it! The waiting-list's full!"

II.

AMBEY BENNET, head of the Bennet Lumbering Company, of Bridal Veil Falls, fidgeted in the smoking-car of an incoming train. He was enduring a bad case of nerves.

Mr. Bennet's irritation had been at the boiling-point for hours. The up-country

express, which should reach the city at 4.30 in the afternoon, was behind time. Although he had a journey of less than fifty miles to make on that train on that Saturday afternoon, great odds depended upon his being on time.

Accordingly, as Bennet was more than anxious for a wind-up of the negotiations, he drew twelve thousand dollars from the office and decided he would personally bring the funds to the city. He did not relish the task of carrying this sum with



CHRIS KNUDSON HELD THE
BRAKES UNTIL THE BRASS
HANDLE WAS BENT.

A big timber deal, which had been pending for fully a year, had only that day been brought to a head. Flegel, the company's counsel, had rounded up a bunch of squatters, and had shrewdly persuaded them to relinquish title in favor of the syndicate upon a cash basis. That the claimants might not have time to reconsider the bargain, the lawyer had sent a hurry wire to Bennet to come in from the mills with the cash.

him; but, as he would reach the city in broad daylight on the afternoon express, and as he would be on the train a matter of fifty-five minutes, he reasoned that there were few chances to take.

Late trains invariably get to be later before they arrive. Mr. Bennet fumed abuse upon the railway company as time wore on and the hour of his appointment slipped by.

Ten thousand dollars of the sum he carried was wrapped up in a neat, compact package of fresh currency, enclosed in a leather case by rubber bands. It reposed in a secret pocket of Mr. Bennet's light top-coat.

The Union Depot steeple clock showed

close to six when the train rolled into the terminal yards. The lumber syndicate president irritably answered the remarks of the conductor as he was preparing to leave the car. He pulled from his pocket a yellow slip of paper, and read several times the lawyer's message: "Must have the cash by half past four to-day."

At the same instant that Mr. Bennet read the single line, a pair of lynx eyes,

to assure himself it was there, pushed his way more aggressively than the rest.

Denver Joe was close upon him. In the crush, the crook was shoved plumb against the hurrying magnate, whose coat became unfastened. As they jostled along—Bennet being too preoccupied to take note—one lapel was deftly jerked aside, and Denver Joe located the treasure his instincts told him was there.



A PAIR OF LYNX EYES, JUST BEHIND HIM, TOOK IN THE WORDS.

just behind him, took in the words. The inquisitive optics belonged to a low-browed young man with villainous physiognomy.

The incautious Bennet never dreamed that an accomplished pickpocket and house-breaker was a fellow passenger in the smoking-compartment.

Denver Joe's lynx eyes took in the possible meaning of the yellow slip of paper of the prosperous-looking party before him. All his "professional instincts" were at once aroused. He soon made up his mind that the old gentleman was nervous about the "cash" mentioned in the despatch.

Scarcely had Mr. Bennet reached the door of the coach before the Denver crook had located the exact whereabouts of the money.

Through the corridors of the station two buffeting streams of passengers flowed aggressively along. Mr. Bennet, pressing his precious package to his breast

They emerged upon the plaza. As his besetting luck would have it, not one unengaged cab was in sight, and Bennet cursed.

Just then car 47, on her way down-town from the barns to take her Thirteenth Street night run, with Shorty Saunders at the controller and an extra man, stopped at the plaza intersection. Impatient travelers menacingly shook luggage and umbrellas at her. The crowd clambered aboard; the conductor rang the gong and coached them all to move lively.

In the confusion, a woman dropped her purse. There was more confusion as the woman grew excited, and as craning necks and bumping craniums came together in the general endeavor to assist her. Denver Joe gallantly helped the affrighted woman. His hat was pulled low, and his eyes were flashing brightly. In the midst of the general jostling into seats, Mr. Bennet felt somebody butt into him, and turned to murmur "Excuse me!" to no-

body in particular. Then one lightning flash of the wrist did the business. Denver Joe's hand covered the wallet. In an instant it was transferred from Bennet's coat to his sleeve. Rapidly he moved forward to place several passengers between himself and Bennet.

The car traversed a block, and Joe tried the front door—it was latched from the motorman's side!

If he could slip off by the front platform and drop off—that would be easy. But to get out and away from the car without attracting general attention by getting out at that critical juncture—that was not easy.

Saunders noticed some one on the inside wanted to leave the car. He motioned: "Back platform."

Then Denver Joe cast his eyes through the aisle and estimated his chance of escape.

A man leaned over and spoke to Mr. Bennet.

Two seconds later, the crook noticed that the lumber magnate passed his hand into the side-pocket of his coat—the wallet was gone!

Mr. Bennet half rose from his seat, gasping!

Instantly, every eye was turned curiously upon him. He clutched himself convulsively at various places about his clothes.

"That man's goin' to have a 'polexy fit," shrilly cried a large woman.

Immediately everybody drew away from Bennet, as if he were stricken with the plague.

"I'm robbed!" he shrieked. "Conductor!"

The conductor stoically collected and rang his fares and looked incredulous. Bennet executed a frantic dance in the aisle, and then, down on his feet and hands on the floor of the car, he groped and searched.

The passengers stared at one another. Their faces said: "Which one of us is the guilty party?"

"My money's gone!" Bennet shouted, turning red and white. "I'm robbed within the last two minutes on this car! Conductor—"

"What's that? Robbed! Are you certain?"

"Certain! Certain, man! Yes, yes—

I'm sure! See, here, my coat's cut! I demand a search be made!"

In his intense excitement Mr. Bennet laid both hands on the shoulders of the conductor, alternately shaking him and expostulating.

Shorty Saunders, noticing there was trouble aboard, stopped the car, ran around to the back platform and entered. "Car men have to fight one another's battles; so, without waiting to hear the merits of the case, or what it was all about, he jerked Bennet away and hurled him into his seat, adding:

"Rough house, eh, old horse?"

"Says he's robbed, Shorty," said Ex-traman Stevens. "How much did you have?"

"Ten thousand dollars!" fumed Bennet, getting to his feet and rushing at Shorty, who, however, held him. "And I call upon these people to witness the treatment I'm getting. I'll hold you and your company responsible."

"You've dropped your money," challenged Stevens.

"I had it when I stepped on this car, you grinning donkey," said Bennet; "and some one on this car has it."

The passengers began to work themselves into varying stages of indignation, amazement, and alarm. Men and women felt for their purses and jewels, and looked generally uncomfortable.

Two police officers hove in sight.

In a few and mostly incoherent words the situation was explained by Bennet. The announcement of who he was impressed the police and put an entirely different face upon the matter.

"Every one on this car must be detained," said an officer at the door. "Some money has been lost by this gentleman. Any person who objects to displaying the contents of their pockets will please step off the car."

"I'll sue the company," growled one individual. "What a humiliation," tearfully announced a flouncing woman. "This is brainy police work," sneered a drummer. "Quite the regular procedure. They ought to call the wagon and cart us to the station on suspicion."

Denver Joe sat still in his own corner and smiled demurely. It was going to be a close pinch for him. As the searching process began an ingenious plan for dis-

posing of the well-filled wallet flashed through him.

Working the packet from his coat-sleeve, he carelessly dropped it down between the seat-wall and window-casing, and watched the perturbation of the other passengers during the polite examination, as if it held no interest for him.

Notwithstanding the murmured complaints against this high-handed procedure, the passengers yielded up their possessions to the gaze of Sergeant Anderson.

Hand luggage was opened to the inspecting eyes of the officer and Bennet.

The practised eye of the minion of the law thought it beheld in Denver Joe a suspicious character, and accordingly took more liberties with him than with the others.

"Hal-lo!" drawled Anderson, in a tone that Denver Joe dreaded. "Have you seen anything of this gentleman's pocketbook?"

There was a rippling of smiles at the pleasantry.

Denver Joe's only fear was that they might have a picture of him in the rogues' gallery, and arrest him on general principles. Joe said he did not know anything about anybody's pocketbook but his own.

"What's your name, and where are you from?"

"Frank Thompson."

"Well, Frank," good-humoredly remarked the sergeant, "will you come with us for a few moments?"

"What's the matter? What do you want me for?"

"Just want to see you, that's all," soothingly said the officer, leading him away. "I think we can dig up a record of you. No harm, if your last clearance is all right. Have you seen this man before, Mr. Bennet?"

"No," replied the magnate; "not that I can remember."

"Well, he came in on the train with you, didn't he?"

"Yes—that is, I guess so."

"It may be that you did not have the money when you left the train, then?"

"Oh, no. I was too careful to forget it an instant, officer. I am certain that I had the wallet in my pocket when I boarded the street-car."

"Be careful what you say," whispered the officer aside. "The chances are that

this crafty guy has a confederate—a woman."

"You're making a big mistake this time," said Denver Joe, with evident consciousness of innocence. "I'm an honest working man, and—"

"Cut it out—cut it out!" sternly commanded the bluecoat. "Now, you know all about this, and you'll have to tell us where that money is."

"Not me. I can't tell you. You won't get that out of me, because I know nothing about it."

Mr. Bennet expressed his doubts about the dishonesty of Joe, but he followed the officers to the police station; while car 47, worth ten thousand dollars more than she was a quarter of an hour before, rolled on down-town.

Denver Joe was put through the sweating process for two hours, but the results were trifling. He told a straightforward story of his arrival in the city, claiming that he had not paid any attention to Mr. Bennet.

Taken in connection with Mr. Bennet's own statement that he had boarded the car with the money and, a few seconds later, missed it, together with the further apparent fact that the thief, if on that car, had had no opportunity to dispose of the roll, constituted, in the opinion of the chief, "a baffling case of robbery."

The following morning, when Bennet reached the station, the chief greeted him with the discouraging information that there were no clues.

"Unless," he added, "you have thought of some circumstances between the time you left the train and reached the street-car that would help to throw light on the matter. I believe your coat was rifled before you came to the car."

"No," somewhat resentfully declared Bennet. "It was an extraordinary emergency. I carried my wits with me. I know that I had that money with me when I took my seat in the street-car. There was, as usual, a big crowd and great confusion and, knowing that it was risky, I was very careful."

"Don't advertise until you hear from me," said the chief at the close of the interview. "We'll keep this fellow under surveillance after letting him go—it may be he has a woman accomplice. We are apt to strike a clue that will

obviate the necessity for paying a large reward. Besides," here the chief grew chesty, "my detectives can find the money if it is to be found."

III.

THE usual inquisitorial device and promise of reward failed to move Denver Joe, who chuckled to himself that he was the real master of the situation.

Although informed that the loser would pay a big sum for information leading to the recovery of the roll, besides insinuating immunity from prosecution, Joe seemed to know no more than when first taken into custody.

He knew the ways of the police. They were as unreliable as a woman in the "lifting" business. He would have none of them. The police usually extracted the important information from a poor devil in a jail cell with "boo—boo—the—pen—for—life" to him.

Then they captured the booty, the public approbation and the reward. When they did see fit to let a prisoner go free he got no consideration—not even the price of an honest man's meal.

Well, if that little roll lying between the ribs of 47 ever got back into his hands it would be his, surely! No use for him to tell the police where it was, for that would be his commitment to the penitentiary, beyond a doubt.

On Monday afternoon, Denver Joe was much surprised to find himself released from the tank.

He wandered up the street with a

feeling that he was being watched by a fly hound of the force. If he could only locate number 47, in which reposed his golden prize! A little piece of crooked wire and, he could soon recover that precious wallet.

Joe found his way to the street ending at the Union Depot. There he lingered for an hour, but 47 did not appear.

He fancied he saw the conductor on a passing car, but discreetly got out of sight before being recognized. He stalked uptown again, taking a careful, as well as most unusual, interest in passing street-cars.

"I'm a big chump," audibly declared Joe to himself, coming to a dead stop. "Me out of this business! Pshaw, it's the Central and Suburban, isn't it? An' me a fool to stand here when I can hit the phoney wire and find out where 47's run is to-night."

Going into a dingy saloon, Joe asked permission to use the telephone.

"This is the car-barns," said a gruff voice on the wire. "What's wanted?"

"I want the superintendent."

"Who'd you suppose this is? I'm the man."

"That's all right. This is the police department."

"Well?"

"Where's car 47's run?"

"What d'ye want to know for? I s'pose she's smashed something again and the newspapers are after it, eh?"

"That's the business of this department. Where is it?"

"Oh, 47's on the Thirteenth and Montgomery Avenue branch. Good-by."



"THIS IS THE POLICE DEPARTMENT."

"Good-by."

Two hours later found Denver Joe trudging along the cross-town branch. Car 47, he noticed, carried no conductor after 6 o'clock, and the revenue consisted largely of transfers. It was merely an accommodation line and the outer terminal was at the foot of Beacon Hill. It was only a short run—and, as there were few passengers, his actions would be all the more conspicuous.

IV.

It was a thick night, with a blanket of fog pressing down on the town. The tracks were slippery with half-frozen mist. The lights glowed dimly. The damp cold, sweeping onto the vestibule, made Saunders quake to the marrow of his bones. The headlight of 47 winked fitfully. The current flowed erratically.

As he was proceeding out on the 11.45 trip, the headlight blinked through the fog and fell upon the figure of a man at the crossing. His hat was set down over his eyes and, as he threw up his hand as a signal to stop, it seemed uncanny.

The car lurched forward over the uneven crossing. Shorty pulled on the brake to stop her.

Just then the light threw a stronger glare and revealed a white-cloth mask over the chin and mouth of the figure on the ground.

Saunders's first thought was of highwaymen. A misguided one he was, at all events, for the haul of a gun-metal watch and eighty cents, Shorty reflected, would not be lucrative for the calling of a first-class road-agent.

A glance over his shoulder confirmed his suspicions—the intending passenger was disguised.

Shorty let fly the handle of the brake and threw the controller lever over almost to full speed. The car responded with a fierce leap ahead. The black shadow, however, caught the guide-rail and hung on. His feet slipped and his head cracked against the corner of the vestibule of the car. His hat flew off, exposing his face.

"Curse you!" he roared, as he struggled on the platform. "Stop the car! or I'll knock your head off!"

"What do you want?" demanded Shorty. "You're a ohump if you're looking for dough on this run."

"None of your business what I want. I've lost something inside, and I'm going after it! Just mind your own affairs! Stop her!"

"Not much," ejaculated Saunders, game to the core.

Not seeing any gun in the play yet, he thought he could take his chances in a rough-and-tumble with his hold-up passenger.

"You've got a funny way of looking for things, friend. Lost articles can be found at the office of the company. Let's see your face. Maybe 'tis a joke."

Suddenly, Saunders snatched away the handkerchief. "Well, you're a bird—"

The reply was a stout crack from Denver Joe's fist squarely upon Saunders's jaw. The doughty motorman reeled backward against the window of the vestibule, smashing the glass and cutting a gash in his forehead. The blood streamed into his eyes.

The sting of the cut brought Shorty's fighting blood welling. The controller lever came off with a jerk. Shorty swung it and delivered a smashing blow upon the highwayman's skull. Denver Joe went down with a cry. He tumbled backward off the platform.

Saunders's senses were whirling. In vain did he try to replace the lever on the motor-box controller. It fell from his nerveless hand.

He sank fainting on the platform, and 47, with rare intelligence and freakish wisdom, shook off the burden of the body near a lonely crossing and ran on her way untrammelled.

The course of the car was decorous enough until she approached the intersecting cross-tracks of the independent system. At this point an old, abandoned switch connected with the double tracks of Montgomery Avenue. The rails were half submerged under dirt and gravel. They had not been used since the pioneer line was constructed.

When 47 struck the split-rail section at full tilt, the flanges of the front wheels took the old turn gracefully and threw the long unused frog over.

With satanic perversity she rolled over onto the down-town track of the rival

street-car system, the spring switch dropping back into place as she started up the avenue on a five-per-cent grade.

Fifty yards away from the switch the trolley-wheel slipped off and 47 stopped. Then the law of gravity asserted itself. She began to roll down grade. She gathered momentum quickly. Her brake-chains clattering free, she charged forward in the murky atmosphere as if seeking an enemy to destroy. The trolley pole bobbed and swayed and struck out menacingly in every direction.

Fastenings were torn from poles. Wires tumbled. Guy lines burned and sizzled. Louder and louder roared the motor cogs. Car 47 passed the turnout switches, careened fearfully on the curves, but kept to the main track.

Telephone lines were set blazing as the flying trolley-pole rasped live wires. Sudden blazes started, awakening and frightening dozens of households. The fire department was called out.

One of the motors exploded under the pressure of the terrific voltage of sudden contacts. Persons abroad on the streets were appalled by the remarkable vision of the veritable chariot of fire winging its way recklessly through the public thoroughfares.

At the foot of Montgomery Avenue, the tracks curved onto the trunk line. Here, there were cars from four directions, crossing and turning on a perfect gridiron of tracks. Into the network 47 plunged, the sparks flying from her wheels, her motor-box ablaze, and the scrape of the flanges on the guide-rail singing her death-knell.

She tore loose the curving rails and then bounded diagonally to the opposite corner—an elegant home of brown-stone fronted by two large spruce-trees and a yard guarded by a neat fence. Her course was set unerringly for the first of the big trees, which cut her through as a knife.



SHORTY SWUNG IT AND DELIVERED A SMASHING BLOW.

A shower of splinters and glass filled the air as portions of the dismembered car demolished the fence.

Her trucks were curled up in hopeless confusion.

Her brake-rods were rammed through the mass of the wreck, while her motors lay in smoking pieces on the curb and her entrails were piled up like flotsam of the sea.

V.

ABOUT Four o'clock that morning, Shorty Saunders was picked up, half dead from exposure and loss of blood, and taken to a hospital.

While he tossed upon a white cot, fighting imaginary foes in fevered delirium, workmen gathered up the wreck of the hoodoo.

In the last of a pile of window-frames and a section of the battered runaway was extricated, the next day, a leather package filled with currency.

Bozzon, the barn boss, took a long look when he examined the package. He wiped his eyes again and again as he expressed his astonishment. The money was duly turned in at headquarters and claimed by Bennet, but no one connected with the finding of the package could offer the least explanation of how it came to be in the wreck.

General Manager Phillips was perplexed beyond measure. This perplexity was increased by two circumstances while they were all waiting—and hoping very earnestly—for the recovery of Saunders.

Some days later the general manager received an anonymous letter through the mails. He threw it in the wastebasket and, having thought about it a second time, dug it out and sent for the detectives.

The unsigned communication called his attention to the fact that the man guilty of the stupendous robbery of \$10,000 from the lumber magnate was the motorman, who had picked up the money when it was lost and had hidden it in the car.

Another circumstance that puzzled the general manager was a newspaper article which professed to have inside knowledge of the plot of a great robbery that had been planned. The robbers had been foiled, the paper said, and had seized a street-car to hasten their escape from the city.

Denver Joe conducted his anonymous correspondence from an adjoining city, and announced he was ready to take his share of the reward for testifying against the thief. He gave as a reason for not denouncing the thief at the time that he expected the motorman to split with him. Hearing that the car had been annihi-

lated and the missing treasure found, he was willing to make a clean breast of it. For a consideration, he would substantiate his story and show up in person.

This seemed plausible enough, until an investigation set afoot by the general manager cleared up the matter. On the day that Saunders was able to come down to the office of the general manager, a Pinkerton man corralled the clever Denver Joe and he confessed.

Superintendent Skinner had been inclined to think Saunders had been drinking on the night of the runaway, and had let 47 get away from him. This was sternly denied by the general manager.

And Shorty sat up and took notice when Phillips said:

"Bennet, the man who lost this money, has left in my hands a little remembrance of \$600 for you. You didn't know, of course," continued Phillips, with his keen eyes fixed upon the motorman, "you didn't know that the man who lifted the roll from Bennet was on your car and, when about to be discovered with the roll on him, dropped it in the ribs of 47, as well as the tiny pair of shears with which the job was done.

"The man had no time to escape, and got rid of the money in that way. Can you identify the man who tried to stop your car on Thirteenth Street the night you got hurt?"

"That I can," declared Saunders.

"BLONDIE" REYNOLDS MADE UP TIME.

THE New York Central's fast train from New York to St. Louis arrived on schedule time, says the St. Louis *Globe-Democrat*, and after a loss of thirty-five minutes was made on the eastern division, it was up to the Mattoon division to make up for the lost time of the twenty-four-hour run.

When it became apparent that something had to be done, the New York Central officials sent out a call for Engineer "Blondie" Reynolds. He was out on the line, but was soon under way to Mattoon, and when the west-bound train steamed in he was ready to receive her, grim determination in his face as he climbed into the cab.

Then began such a feat as will go down in the history of fast trains for many years to come. He and his fireman held the engine,

Conductor Thomas Lawlor and his right-hand man, Charles Scanton, "held the train on the track," and in a few minutes after leaving Mattoon the passengers were on their feet in the aisles with the trainmen, watches in hand, cheering as each mile was gained.

At Granite City a shout went up. "Blondie" Reynolds had done the seemingly impossible. He had not only made up the thirty-five minutes, but he had put the big train twelve minutes ahead of time. When she struck the maze of the terminal tracks he was fifteen minutes ahead, but there was a little loss in getting into the station.

Not enough, though, to lose the day. There was still eight minutes leeway when the observation-car shot under the roof of the Union Station.

Possibilities of the Gyroscope.

BY C. F. CARTER.

THE present curiosity among railroad men, incited by the publicity that has recently been given to the gyroscope or monorail car, leads us to ask Mr. Carter to write a fair-minded and conservative article based on the adaptability of this new contrivance to railroad service.

Many railroad men have been led to believe that the Brennan and Scherl inventions are destined to revolutionize present railroad conditions. Such is far from the case. Although they certainly rank with the greatest inventions of the day, they are far from being taken seriously, and no railroad man need have any fear that the near future will be altered by the principles of gyrostatic balancing.

The two-rail system will be in operation for some time to come.

How the Gyroscope Monorail Car Operates. A Principle That Is Not New. What Some Experts Have to Say About It As a Practical Railroad Issue.



EVER since Louis Brennan exhibited in London last fall a car which runs upon a single rail, and is prevented from falling to either side by the resistance of two gyroscopes carried on the car, and Mr. Richard Scherl, of Berlin, exhibited a similar contrivance, much has been published to make the traveling public believe that the day of the two-rail track is about over and the era of the monorail is about to dawn.

Indeed, the inventions of Messrs. Brennan and Scherl have been heralded so fully that the humble track-walker has been led to believe that the day is coming when his weekly wage will be cut in half because he has to walk along one rail instead of two.

The car propelled by gyroscopic mechanism is far from being anything but an experiment, and as yet is so infinitesimal a factor in changing the standard principles of railroading that its future is extremely doubtful.

Undoubtedly it is one of the most remarkable inventions of this or any age—but is it practical and will it pay?

This is a question that must be asked when anything new is brought out that is intended to make a complete revolution in established principles.

From what we can gather, it is evident that, speaking in the kindest way, the answer must be, "No."

The case of the gyroscope car was admirably summed up in six sentences in the *Engineering News* of May 30, 1907, after Mr. Brennan had first exhibited his invention and had made such extravagant prophecies concerning its future development. As a prominent consulting mechanical engineer and the operating vice-president of one of the trunk-lines told me substantially the same thing, though at greater length in expressing their views on the matter, in the month of January, 1910, the briefer statement may be worth recalling. Here it is:

"That the feat is a scientific marvel of the first magnitude will certainly be

agreed to by all. Turning now to the projects for the practical application of the invention, we confess ourselves unable to see any prospect of the use of such a system of transport as a competitor of the ordinary two-rail railway.

"Granting all the claims of the inventor, it appears impossible that any such system could seriously be considered for a high-speed line, since it would be inherently more dangerous than the ordinary two-rail system. The proposition of the inventor to operate cars of extraordinary widths on this system may also be set down as an absurdity. The chief practical field for the invention, if the claims for it are substantiated on further investigation, would appear to be for the construction of very light, cheap lines for handling traffic of small volume.

"Some form of transportation line which can be built and maintained at small cost is needed in a thousand places, such as mining and logging railroads, pioneer and military lines for contractors' use, and on ranches and plantations."

A Conservative View.

Hart O. Berg, who brought the Scherl car to America, takes a conservative view of the invention which will go far toward restoring the confidence in it that has been sacrificed by oversanguine enthusiasts. He said:

"We are not advancing the gyroscope monorail car as a perfected invention, but only as an idea that is worth developing. We have brought the car over here to get it before American engineers to let them get their wits to work upon it.

"We are not going to form any stock companies, and we are not going to build any monorail lines yet. We have had several inquiries from parties who wanted a line on our system for various purposes.

"We'll build them all right if any one wants to pay the price, but our prices are not framed to invite business. Instead, we always cordially recommend the present type of two-rail line.

"As we hold the basic patents for the gyroscope, we can afford to play a waiting game; and that is precisely what we are doing. Any one who invents an improvement of any kind for the gyroscope-

car will naturally come to us, and we, as well as the inventor, will be benefited."

For Military Purposes.

Mr. Berg's views are sound and conservative. He thinks it not unlikely that the first practical application of the gyroscope monorail system may be for military purposes. Next, he thinks it might be found peculiarly adapted for subway construction. In a close-fitting tube the thing simply couldn't fall over, if it tried. Finally, he is not certain but what it may be found to have speed possibilities. But he makes no predictions.

Mr. Berg has acquired the habit of taking improbable things in hand and making them work. He was concerned in the manufacture of the first automatic pistol, the first successful automobile, the first submarines, and he took up the business affairs of the Wright brothers, the first manufacturers of flying machines, when they went to Europe.

The Scherl gyroscope car, which Mr. Berg brought to America, was exhibited in Brooklyn in January. It was a working model, 18 feet long and 4 feet wide, weighing 5,000 pounds. It had seats for four passengers and a motorman. It was mounted on two trucks, each having two small wheels, tandem.

The wheels had double flanges to keep them on the single rail. The car was driven by ordinary motors, taking the current through shoes in contact with copper wires on each side of the rail.

How They Work.

The interest in the car, of course, centered in the gyroscopes, of which there were two suspended inside the frame of the car beneath the seats. The gyroscopes are simply tops consisting of steel disks about sixteen inches in diameter, mounted on vertical axes, and hence revolving in horizontal planes like any other tops, but enclosed in steel vacuum chambers. The gyroscopes made up 5.5 per cent of the weight of the car.

The descriptions of the apparatus were more remarkable for what they omitted than for what they revealed; for the details are guarded secrets at present.

Each gyroscope was driven by an

electric motor of three-tenths of a horsepower, mounted directly on the shaft. The gyroscopes turned in opposite directions at the rate of 7,000 revolutions a minute, as was shown by speed-indicators in front of the motorman.

At first the inventors tried running the gyroscopes in the open air. This required 27 amperes, at 110 volts; but when they tried a vacuum two and a half amperes sufficed.

Its First Application.

An interesting feature was that the gyroscopes were pivoted crosswise of the car, so that they would tilt forward and backward freely; but could not move sidewise.

The peculiar gyroscopic principle, which enables a top or wheel set to spinning in a given plane to hold to that plane, regardless of the laws of gravitation, has been understood and utilized for a good many years.

Foucault, the French physicist, made use of it in an experiment half a century ago to demonstrate the rotation of the earth.

Soon after L. Obry, of Trieste, France, invented a steering-gear for torpedoes, in which a gyroscope was used to control the rudder and hold the torpedo on a predetermined course. Obry's invention made the torpedo an effective instrument of war, and it is still steered by his apparatus.

In 1856 Professor Piazzi Smyth used the gyroscopic principle in a device intended to secure a steady support for an astronomical telescope at sea.

Used on Ships.

Dr. Otto Schlick used a gyrostat in an experiment in 1905 to diminish the rolling of ships. Although the experiment was an unqualified success, no vessel has yet been equipped with a gyrostat.

Finally Louis Brennan, of England, and August Scherl, of Germany, working independently and unknown to each other, tried the gyroscope as a means of maintaining the equilibrium of a mono-rail car. Mr. Brennan, who, by the way, is the inventor of a torpedo which is steered by wires, which it unrolls as it

pursues its course, was the first to announce his discovery, and he was able to obtain a patent on the plan for enclosing the gyroscope in a vacuum chamber.

Mr. Scherl and his collaborator, Paul Froelisch, however, got ahead of Mr. Brennan when they discovered that the gyroscope needed a little help. This was provided by an apparatus which they called a "servo-motor."

When the car leans to one side and the gyroscope tries to pull it back, the "servo-motor," by means of a delicately adjusted series of brass levers enclosed in a glass case, automatically feeds itself some electric current which generates power, by which a pull is exerted by means of levers and reach-rods on the gyroscopes to tilt them farther over, and thus intensify their action.

As the car returns to an even keel, the current is automatically shut off from the servo-motor. The gyroscopes are connected by means of toothed quadrants, so that they both tilt together at the same angle.

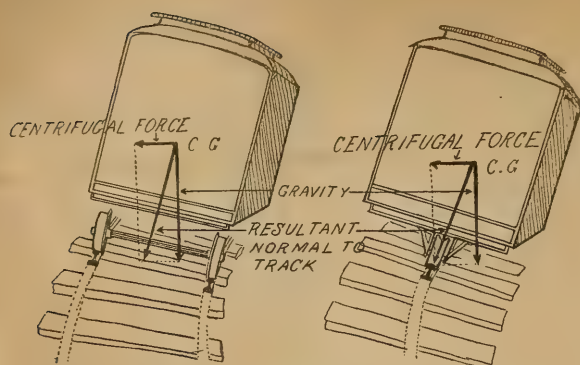
Props for Stops.

There are props on each side of a car, which are put down to support a car when a stop is made.

The operation of the gyroscopes is entirely independent of the running of the car. They keep right on spinning, no matter whether the car is running forward or backward, fast or slow, or is standing still. Their function is solely to keep the car upright.

Their axis of rotation is normally at right angles to the track. If the car tips to either side, the upper ends of the gyroscopes rotate slowly in a circle, just like a spinning-top, in an effort to bring their axes of rotation parallel to the mono-rail. The circle described by the top grows smaller until it disappears. This kind of movement is called "precessional motion." It is a law of gyroscopic motion that, if precession is hastened, the body rises in opposition to gravity.

The gyroscopes, being rigidly attached to the car, are practically a part of it; and the servo-motor by accelerating precession causes the depressed side of the car to rise promptly. As it rises it causes



STANDARD TRACK

MONORAIL TRACK

Courtesy of the "Scientific American."

OLD AND NEW METHOD OF ROUNDING CURVES.

a precessional movement in the opposite direction, which checks any tendency to oscillate.

This process had an uncanny effect. When the car was brought out on the track that had been laid around Clermont Skating Rink, in Brooklyn, and left standing empty, it would sometimes sway slightly to and fro like a man who had celebrated not wisely, but too much.

The weight of five or six men always had a sobering effect, however, and the car would make the circuit of the rink steadily enough, always leaning inward in going around a curve in proportion to load and speed.

Heavy Side Rises.

If one or more of the passengers threw themselves on the side of the car, instead of upsetting the heavy side would rise.

When running empty the car would lean in farther on curves than when loaded, always straightening up on an

even keel on reaching a tangent. In other words, the gyroscopes did for the monorail car what superelevation and easement curves do for two-rail trains.

That the gyroscope will continue to revolve from its own momentum after the current is shut off, was proved when a fuse burned out as the car was being taken out on the floor.

It made the circuit of the rink and returned to its stall with current supplied to only one of the gyroscopes. On reaching the stall one gyroscope was making its usual 7,000 revolutions

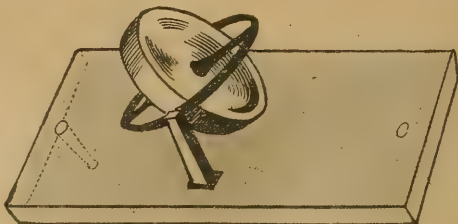
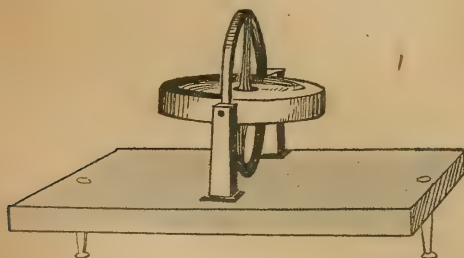
a minute, while the other was only making 4,500. But they held the car steady.

Noise and Vibration.

The humming of the gyroscopes makes a loud roar, which sounds much like a planer dressing a knotty board. They also cause a vibration that to a passenger possessed of nerves is intolerable. Until the fearful noise and vibration are eliminated the gyroscope car can hardly be considered desirable for passenger traffic.

Many preposterous claims for the gyroscope monorail system have been made in print. Whenever they are questioned the doubter is reminded that all sorts of dire failures were predicted for the railroad less than a century ago. But the circumstances are totally different.

The world did not know anything at all about railroads in the second decade of the last century, and may therefore be pardoned for failing to grasp at once



Courtesy of the "Scientific American."

VIEW SHOWING GYROSCOPIC MOVEMENTS.

If the table (representing platform of car) be tilted transversely, the gyroscopic fly-wheel will tilt fore or aft according to the direction of its rotation, and there will be developed a strong resistance to the movement of the table. This fore-and-aft movement is called the precession.

their possibilities. But a great deal has been learned since; and while a great deal more remains to be learned, certain elementary things are so well understood that there is no excuse for not recognizing the limitations they impose.

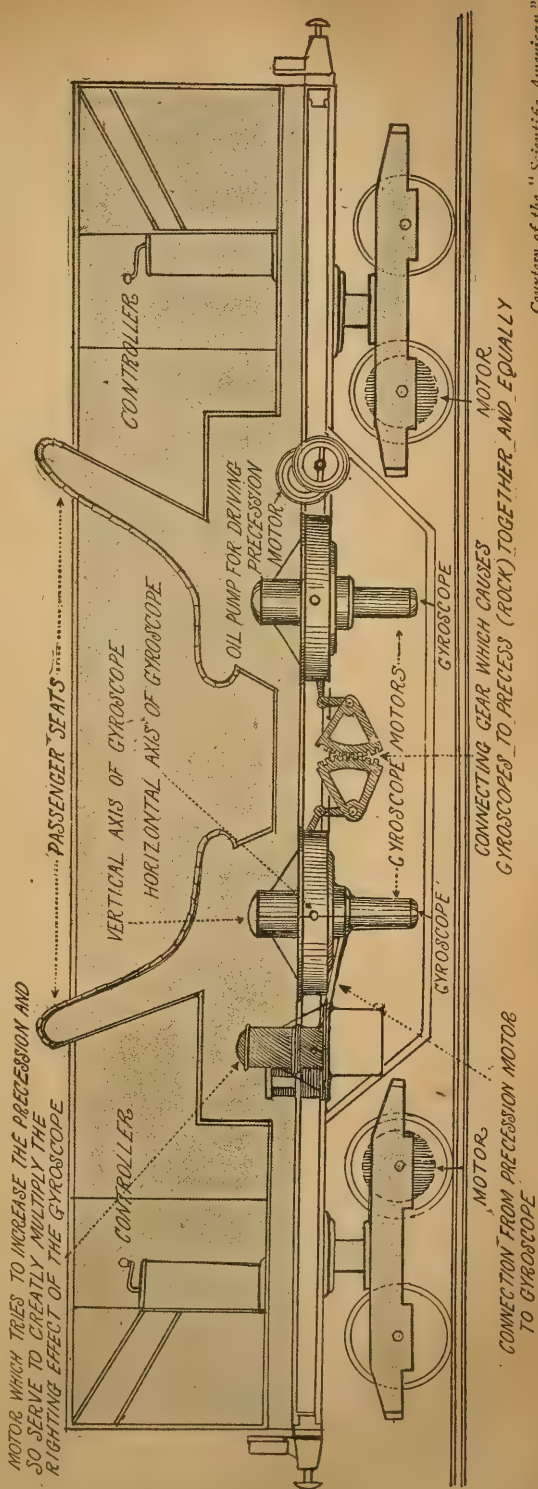
To begin with, the monorail car is wholly dependent upon the gyroscope to keep it upright. While a well-built gyroscope is perhaps no more likely to break down than any other well-built machine, it is certainly not less liable to do so. It must, therefore, be considered as an added element of danger not possessed by the two-rail road.

As for the extravagant claims for great speed that have been made in behalf of the gyroscope car, it must not be forgotten that there are certain obstacles to overcome in maintaining high speed that are always the same, whether the car runs on one rail or on six.

One of these is atmospheric resistance. For moderate speed this is relatively unimportant; but on getting up to sixty miles an hour or more it becomes a thing to be considered.

At 110 miles an hour the atmospheric resistance is nearly four times as great as at 60 miles an hour. To drive a car, 30 feet wide and 10 feet high, at the rate of 200 miles an hour (which has been soberly proposed as quite within the bounds of possibility for the monorail) it would be necessary to overcome an atmospheric resistance of 60,000 pounds, which alone would require 32,000 horsepower.

It has been claimed that the monorail car can go around phenomenally sharp curves. As a matter of fact, the ordinary two-rail car is hauled around curves on wharves and docks, in city streets and elsewhere, quite as sharp as any the monorail is alleged to be able to negotiate.



Courtesy of the "Scientific American."

But these curves are taken cautiously and at slow speed.

Climbing the Grades.

The tendency of a monorail truck, traveling at high speed, to go straight ahead on striking a curve, is not likely to be any less than that of the ordinary truck. The single wheel will be just as prone to climb the rail and land the train in a corn-field as two wheels traveling side by side.

It is rather difficult to see just how the gyroscope is going to enable monorail cars to climb any steeper grades than are possible for ordinary cars.

A car cannot go beyond a certain limit, no matter how many rails it runs on or how its wheels are arranged, unless one of the wheels happen to be a cog-wheel traveling in a rack.

The steepest grade climbed by an adhesion locomotive on a railroad handling miscellaneous traffic was ten per cent. That feat was accomplished on a temporary track on the Baltimore and Ohio in 1852. The achievement has not been duplicated since, and no one wants to duplicate it.

Railroad men are not lying awake nights studying out ways to build lines with steeper gradients; their one idea is to reduce the grades they have, and they are rendered unhappy by a grade of one per cent.

Calling on Imagination.

Even if, by the magic of the gyroscope, cars could be enabled to climb abnormal grades, the feat could be accomplished only at an expenditure of power out of all proportion to the results.

As for the proposal to bridge wide chasms simply by stretching a cable, upon which the monorail is to cross like a slack-rope walker, with the gyroscopes instead of a balancing-pole to maintain its equilibrium, no engineer will take that too seriously.

And, no matter how many rails a train runs on, the imperative necessity of being able to stop quickly, as well as to get up speed, remains unchanged. Just how the braking power of a car is to be increased by robbing it of half its wheels has not

been explained by those who talk of running from 120 to 200 miles an hour.

The fascination which the monorail has exercised upon the imagination of inventors is one of the most curious things in the history of the railroad. Almost from the very beginning men have sought to improve the railroad by taking away half its rails.

An Old Story.

Thomas Telford, the great Scottish engineer who played so conspicuous a part in developing internal improvements in England and Sweden, first proposed the monorail as long ago as 1831. Since then a continuous succession of inventors has patented various forms of single-rail railways, all of which were to revolutionize the world's transportation systems, but none of which has done so.

In 1877 F. I. Rowan read a paper before the Society of Arts in London, advocating the building of monorail lines as pioneer railways for undeveloped and difficult countries.

In 1883 Charles Lartigue, a French engineer, built primitive monorail lines in Algeria and Tunis that were operated by horse-power.

F. B. Behr took up Lartigue's idea, building an experimental line near Victoria Street, Westminster, in 1886. Two years later he built a short line from Listowel to Ballybunion, Ireland, which was operated for several years.

In 1897 Behr had an exhibition monorail at the Brussels Exposition, running cars 60 feet long, 10 feet 10 inches wide, and weighing 70 tons. On one occasion he claimed to have attained a speed of 83 miles an hour.

And There Are Others.

Lartigue and Behr's system was really not a monorail, but a five-rail arrangement. The principal rail, from which the weight of the car was suspended, was placed 4 feet above the ground, at the apex of A-shaped supports, one meter apart.

On either side of these A-shaped supports were two guide-rails, on which wheels ran to prevent oscillation. There were eight vertical double-flanged wheels

4 feet 6 inches in diameter and 32 small guide-wheels.

An attempt was made to build a Behr monorail line between Manchester and Liverpool in 1901, on which the usual miraculous speed—which seems to be an inseparable feature of all monorail schemes—was to be maintained, but nothing came of it.

Behr also tried to get up a company in 1906 to build a monorail line from New York City to Coney Island; but that also fell through, and since then nothing further has been heard of his system.

Other Systems.

On the outskirts of New York City a monorail line, three miles long, is being built from Bartow to Belden Point on City Island. While the weight of the car is actually carried on a single rail, it is really a three-rail system. In order to maintain the car in an upright position, two light suspended rails are carried on supports above the track.

Wheels bearing against these balance the car, and also serve the purpose of trolley-poles.

The Tunis system, as it is called, is very similar to the E. Moody Boynton system, which was extensively exploited in 1899, but which, nevertheless, met the usual fate of the monorail.

The only true monorail system in actual operation to-day is the Langen suspension line from Elberfeld to Barmen, Germany. It is an elevated structure, from which cars 38 feet long are *suspended* from a single rail instead of running on two rails above the structure.

If the monorail, having the moral support of the gyroscope, can succeed in living down such a past as that, it will be welcomed by engineers and railroad men alike.

What an Authority Says.

The *Scientific American*, in a recent editorial, says:

Brennan and Scherl, each working independently of the other, have recently proved that a car containing a pair of gyroscopes can be run upon a single rail and maintain its stability under varying conditions of eccentric loading,

side winds, and curving track. Upon seeing a practical demonstration of this fact, and submitting the car, as the writer recently did, to various severe and successfully endured tests, it is natural, in the first moment of enthusiasm, to predict an immediate and widespread application of the system, or even the eventual abandonment of the present two-rail track and trains in favor of the monorail type.

Sober second thought, however, must convince any thoughtful and practical mind that, in spite of the brilliant results of the recent demonstration, the monorail gyroscopic car, in the nature of things, can have only a more or less limited application under present day conditions.

It seems to us that if there is a future for the new system, it will be found in the construction of pioneer railways through undeveloped country, and particularly through mountainous and hilly country where the line must of necessity be very circuitous. The self-adjusting qualities of the car enable it to run around curves which would be altogether impossible for a two-track railroad. The monorail track could be located around a hill or bluff, through which a two-track railroad would have to pass with heavy and expensive excavation. Moreover, for this class of railroad a much lighter car would be practicable and extremely high speeds would not be demanded. This decrease in weight and speed would mean a great reduction in first cost and subsequent cost of maintenance of the system.

If the new type should demonstrate in service of this kind its commercial practicability, it is quite conceivable that it would be gradually applied to the more important lines of travel, and eventually to the main trunk roads.

Opinion of an Engineer.

S. L. F. Deyo, chief engineer of the Interborough Rapid Transit Company, said, after seeing the car in operation:

"I do not think the monorail car has passed out of the experimental stage yet, but that is not saying that I do not believe that some day it will come into use for certain kinds of travel. If there were a collision, for instance, and a monorail car were derailed, it would probably turn turtle. In such a case I would prefer to be on board of a two-rail car."



THE "CONS" OF AN OLD CONDUCTOR.

BY GEORGE FOXHALL.

A tie is the shortest distance between two rails.

A section-boss is the gang's substitute for a dictionary.

The "last spike" is the signal for repairs to commence.

The president of a railroad is the public's idea of "the easiest way."

A section-hand is a man who is quite indifferent to rain, shine, or work.

Rolling-stock is what a railroad always has either too much or too little of.

An air-brake is a thing used by newspapers on which to place responsibility.

Railroads are helpless institutions, devised to give legislators a chance to become popular.

A right-of-way is a strip of private property, trespassers on which cannot be prosecuted.

A block is that forbidden space of track lying defiantly between a passenger and his dinner.

Rails are things made by the steel trust for the purpose of indicating the prosperity of the country.

A suburban smoking-car is a helpless corporation's retort. It foreshadows the wrath to come.

A train is the maximum of speed multiplied by the maximum of safety, producing the minimum of commendation.

A railroad commission is a party of inquisitive gentlemen commissioned to pick up a few of the rudiments of railroading. They never do it.

HOW KOMO BILL WENT EAST.

BY WILLIAM DAVID BALL.

He Made Up His Mind To Quit the Cattle Country—and He Did.



HE fall round-up was over. The last drive of a thousand steers had been made to Wolcott, the shipping point. Komo Bill, night-wrangler for the T. Y. outfit, sat on his heels near where the cook was washing dishes, and stared moodily into the camp-fire.

"Say, Chub," he began, by way of opening a conversation, "don't you ever get tired a cookin', an' a washin' crockery?"

"Naw," answered Chub; "I'd rather sling chuck than get shook up the way you do sometimes. What you got on your mind, Komo?"

Komo looked up gloomily. "Tired, that's all," he answered. "This buckarooin' life is gettin' stale."

There was no comment from Chub.

Komo resumed his watching of the fire. Presently he got up with an air of weariness, kicked a loose sage-brush into the fire, and again addressed the cook:

"I'm goin' East, Chub."

"That so?" said Chub, mildly inquisitive.

"Yep. Take the stage from Kremmlin on Tuesday; probably go to Chicago or New York."

The cook's face lighted up with a sudden thought.

"Say, Komo," he laughed, "you ain't got no money, and the rest of the boys is broke. Where'll you get the cash?"

Komo smiled a superior smile, and glanced at Chub patronizingly. "You leave that to me, Chub. I'll get there."

Komo Bill, with the air of a man about to order out his private car, sauntered over to where the horses were corralled. Around the camp-fire that night the boys were

told of Komo's new plan. Komo himself was absent—gone to the ranch, six miles away, to see the foreman. The cook related what had passed between himself and Komo Bill, and also gave his opinion about the matter.

"Komo'll never get to Chicago without he rides a box car," he said. "He can't borrow no money, an' the cattle-trains has all gone. What's he goin' to do?"

Various plans, of more wit than sense, were suggested by the sympathetic listeners. They were used to Komo Bill's "lay-offs," as they called them; but till now he had manifested no desire to travel farther east than Denver. That he should start for Chicago or New York furnished good material for comment and amusement; but it scarcely caused surprise.

"You listen to me, boys," said Petey Johnson; "I'll stake my last bean that Komo'll make good. He's got brains."

In the morning Komo Bill started for Kremmling on a horse borrowed from the outfit. The farewells were said casually, and consisted for the most part of, "So long, Komo!" and "So long, ole man!"

As the night-wrangler rode over the nearest butte, his comrades caught a few faint words from one of their favorite songs:

Oh, I'll sell my horse an' I'll sell my
saddle;
I'll ride no more for the T. Y. cattle.

Komo Bill stood in front of the Texas Steer, the largest saloon in Kremmling, and watched the stage as it lumbered up to the post-office and general store. One passenger alighted—a slim, well-knit man of medium height, who walked

quickly up the street and entered a restaurant.

Komo watched the newcomer with interest. His clothes were perfect. They reminded Komo of the East, and also that to-morrow was Tuesday—the time he had set for his going.

As yet he had failed to raise the money for his fare. He had borrowed eleven dollars from Jake, the sheriff. Eleven

"This is the hardest proposition I ever tried to rope," he grumbled, as he fixed his eyes meditatively on the restaurant windows. "Guess I'll take a walk and think it over."

The one thing lacking thus far in the present problem was opportunity. This was to come in the person of the stranger who had just alighted from the coach and whom Komo Bill had keenly noticed.



"I HAVE A SOMEWHAT DIFFICULT JOB ON MY HANDS."

dollars, Komo figured, would just about pay his stage fare to the railroad station. It would be the height of folly to start with such a ridiculously small sum. The roulette-wheel in the Texas Steer had taken the eleven dollars, and Komo had taken a walk to see the stage come in.

A settled gloom darkened Komo's face. He growled an unintelligible answer to the bartender's friendly greeting, and passed to the rear of the saloon. The two private card-rooms were unoccupied—or, so Komo thought. He entered the first and sat down at the table. The door

between the two rooms was partly open. Presently he heard voices.

"Jake and that dude feller," he commented without interest. He half rose from his chair to shut the door, but sat down again quietly with his head bent forward.

The stranger was speaking.

"Yes, you see I have a somewhat difficult job on my hands," he was saying. "The kidnaping occurred ten years ago at the wharf in New York Harbor. This Joe Borden has had plenty of time to change his appearance. He is described as tall, well built, with brown eyes and hair, and a slight limp in his left leg.

"At the time the affair made but little stir; now, however, legal complications have arisen in the will of a rich New York man. The relatives want Joe Borden. Information has come to headquarters that he is here at Kremmling, or in the near vicinity. I want your help, sheriff, your cooperation—"

"I'll help you, stranger," the sheriff interrupted, "but hold your lines a minute till I get my memory goin'. Seems like I've heard a friend of mine tell of Joe Borden, an' if I recollect right he said Joe Borden was dead—died in New Mexico, I believe.

"But I ain't certain about it at all. Your man may be right in town now, for all we know. Say, I'll be busy from now till along 'bout two o'clock, but you stick around an' I'll bring my friend so's you can talk to him yourself."

Komo Bill quietly let himself out the rear door. His face was radiant with smiles.

"Joe never did talk much 'bout his wild and frivolous boyhood," he mused, "but I never knew he was that bad. Anyhow, I got brown eyes an' brown hair—an' I guess I can limp, too, when it comes to a show-down."

Komo Bill's preparations were quickly made. Alone in his room, he put on a black suit; it was somewhat faded and wrinkled, but still it was a black suit—a mark of respectability. He buckled on his belt and made sure that the big .45 Colt's worked easily in the holster.

Carefully he locked the door and pulled down the window-shade. A few clothes and trinkets thrust into a battered "telescope," and everything was in readi-

ness. His saddle, chaps, and spurs he had already entrusted to Jake, with minute instructions as to their welfare. He sat down, crossed his feet on the window-sill, and briefly reviewed his plan of campaign.

At two o'clock he would interview the stranger in the private room of the Texas Steer; at four o'clock, if all went well, when the stage from Steamboat passed through he would be on his way to the far East.

But during those two hours the sheriff must be absent. By some method or other he must be put out of the way. Komo Bill smiled broadly; he had devised a method.

A knock on the door. Komo turned his head and grinned at the door-knob. The knock was repeated. Some one descended the stairs.

"Must be 'bout two o'clock," said Komo, as he peered through a slit in the window-shade. He saw the sheriff cross the street, enter the post-office and after a few moments come out hurriedly.

"Campin' on my trail!" exclaimed the delighted Komo. He craned his neck until the sheriff disappeared around a corner.

A moment later, "telescope" in hand, he walked into the post-office.

"Sheriff is looking for you, Komo," said the storekeeper.

There was a general laugh from the men standing around. Every one knew of the friendship that existed between Komo Bill and Jake.

"That so?" queried Komo blandly. "I'm lookin' fer him, too. You know Jimmy of the 'four-bar-four'—I met him this mornin', an' he says he saw Duck Flinn, the rustler, 'bout three miles east of Yampa. If you see Jake, let him know."

The news started a commotion. Two of the men rushed out and sprang to their horses. Komo Bill followed, waving aside the eager questions and excited demands for further information. As he entered the Texas Steer he saw the two horsemen turn the corner in pursuit of the sheriff.

The hands of the clock above the mirror pointed to a quarter past two. Bill set his "telescope" down near the door and hurried to the room where he knew the detective waited.

He opened the door and stepped in. The stranger, with his hands clasped behind him, stood looking at the pictures on the wall. At the noise he turned.

For an instant the two men faced each other. Komo Bill gave a quick start of alarm, and whipped out his revolver. His eyes shone with fierce questioning from beneath the wide slouch-hat. The stranger looked calmly at the black muzzle pointed at his breast.

There was no fear—not even surprise—in his eyes.

"Sit down," said Komo in a low voice. "Put your hands on the table." The stranger obeyed.

When Komo spoke again there was less strain in his voice.

"I reckon you ain't had much experience with the business end of a gun. People in this here country generally throws up their hands."

The stranger laughed.

"Oh," he replied, "you see when I know that the man with whom I am dealing is on the square, I take chances."

Komo smiled at the compliment, but did not relax his vigilance. The man at the table leaned on his elbows and inquired smoothly:

"Might I ask the reason for this little—eh—"

"Gun-play?" suggested Komo, as he threw one leg over the back of a chair and rested his gun on his knee. "No, you can't ask just now. You're a detective, ain't you?"

The question came sharply, but the stranger did not move. His voice was low and even as he answered:

"I don't see just how that concerns you, but I don't mind telling you that I am not a detective."

"Oh!" said Komo. There was a world of relief in his voice.

He slipped his revolver back into the holster and went on to explain.

"Mostly I can tell a detective by instinct, but sometimes I get off the trail. Detectives have a way of snootin' around in things that don't concern them. Now, some folks thinks I'm dead, which of course ain't nobody's business, but I ain't carin' to have no detective tie on to it."

The stranger's dark eyebrows lifted slightly. His next question came in a voice even smoother than before.

"What is your name?"

Komo's smile was genial and confidential—in fact, there was a trace of silliness in his smile—as he answered:

"They've called me Bill—Komo Bill—ever since I came from New York, about, oh, about nine or ten years ago, I guess."

Again there was an almost imperceptible upward twitching of the dark eyebrows. Komo took no notice, but turned and walked to a small table in the corner. The stranger's eyes sparkled—there was a slight but unmistakable limp in Komo's left leg.

"Let's have a game of pitch," said Komo cheerfully, picking up a deck of cards from the table. He turned to confront the muzzle of a revolver held within a foot of his head. His teeth came together with a click.

"I guess I ain't takin' no chances this



"PEOPLE IN THIS HERE COUNTRY GENERALLY THROWS UP THEIR HANDS."

time," he remarked dryly, as his hands went up above his head.

"Right about! Face!" snapped the stranger. Komo pivoted on his heel. A light hand removed his gun and deftly felt his pockets.

er sharply. "You go because you are wanted! Now, to business! As I understand it, the stage for Wolcott starts at four o'clock. We leave then. If you have any clothes to take, get them at once. Ordinarily, I handcuff my man,



"WHY DON'T YOU FIX IT NOW?"

"You may face this way!" The stranger was seated on the table with his feet on a chair. "You are going back to New York with me, Joe Borden," he said, watching Komo with narrowed eyelids.

The quick start and sharp intake of breath that greeted this announcement were admirable—admirable because they were not overdone. They suggested great emotion restrained with difficulty.

"To New York!" gasped Komo. "Besides, that ain't my—"

"That's enough!" interrupted the oth-

but in the present case"—he paused and ran his eyes over Komo's muscular frame with an air of mild contempt—"in this case I feel safe in allowing you to travel almost as if you were my companion. But remember, I am quick with a gun!"

"I guess you got me dead to rights!" murmured Komo.

The stranger put his revolver in his hip-pocket, and pointed to the door. There were no customers in the saloon. The bartender had taken advantage of this unusual state of affairs by going to sleep.

"Let's have somethin'," said Komo, as they neared the bar. Suddenly the galloping of a horse sounded in the street. A fiery little bronco dashed up to the hitching-post. The sheriff swung from the saddle.

Komo Bill groaned, and glanced furtively at the rear door.

"Stage comin'!" shouted some one from outside.

The sheriff entered the saloon. The stranger caught Komo Bill by the collar and pushed him forward.

"Here, hold this man!" he cried in quick, incisive tones. "I'll return in a moment!"

The sheriff swore as the detective sprang past him and through the door. He turned to Komo Bill.

"What do you—"

"Don't give me away, Jake! Don't give me away now. He thinks I'm Joe

Borden. You know Joe's dead. Ten minutes' telegraphin' to Albuquerque will fix things."

"Why don't you fix it now?" cried Jake.

"Sh!—the explainin's got to be done at the other end. Can't you see?" He lowered his voice impressively. "I'm goin' East!"

The stranger appeared in the door, suit-case in hand. The sheriff grinned. Holding Komo by the shoulder, he pushed him roughly toward the door. "You fool!" he whispered in Komo's ear. "Why didn't you let me in sooner?"

As the stage-coach, occupied by the Eastern detective and the night-wrangler, rolled away, the Sheriff of Kremmling pulled his long mustache.

"I wonder now," he mused, "how am I ever goin' to get even with that cuss fer this Dick Flinn business?"

CARS AND LOCOMOTIVES BUILT IN 1909.

THE number of cars and locomotives built during the past year is but a little greater than the 1908 figures, in spite of the improvement in general business conditions during 1909, says the *Railway Age-Gazette*. However, it has really been but a few months since the railways came into the market with substantial inquiries; and deliveries on orders placed at the beginning of this movement did not begin until this fall.

Returns from 14 locomotive builders in the United States and Canada (estimating the output of two small plants), show a total of 2,887 engines. Of the 2,653 built in the United States, 2,362 were for domestic use and 291 for export. These figures include 16 electric and 119 compound locomotives. The Canadian engines, 234, were all for domestic service.

Comparisons for the last seventeen years are given in the following table:

Year.	No. built.	Year.	No. built.	Year.	No. built.
1893....	2,011	1899....	2,475	1905....	*5,491
1894....	695	1900....	3,153	1906....	*6,952
1895....	1,101	1901....	3,384	1907....	*7,362
1896....	1,175	1902....	4,070	1908....	*2,342
1897....	1,251	1903....	5,152	1909....	*2,887
1898....	1,875	1904....	3,441		

During the past year 53 car-building companies in the United States and Canada

built 96,419 cars, which is 23 per cent more than the number built in 1908. These figures include Subway and Elevated cars, but not street railway and interurban cars. It must be remembered also that the output of railway companies' shops is not included.

Of the cars built in the United States, 84,416 were freight-cars for domestic service, 2,435 freight for export, 2,599 passenger-cars for domestic service, and 150 passenger-cars for export.

Of the freight-cars, 63,763 were of steel, or had steel underframes; of the passenger-cars 1,650. Canada built 6,661 freight-cars for domestic service, 58 freight for export, 99 passenger-cars for domestic service, and one passenger-car for export.

In 1908, Canada built 8,598 freight-cars and 79 passenger-cars.

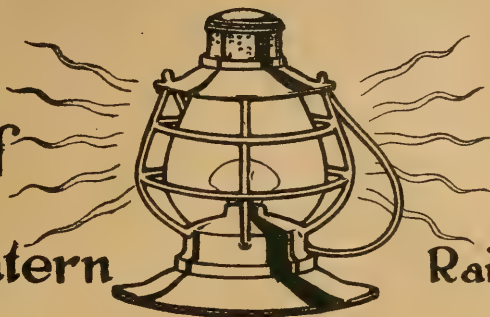
The following table shows the cars built during the past eleven years:

Year.	Freight.	Passenger.	Total.
1899.....	119,886	1,305	121,191
1900.....	115,631	1,636	117,267
1901.....	136,950	2,055	139,005
1902.....	162,599	1,948	164,547
1903.....	153,195	2,007	155,202
1904.....	60,806	2,144	62,950
1905.....	165,455	2,551	*168,006
1906.....	240,503	3,167	*243,670
1907.....	284,188	5,457	*289,645
1908.....	76,555	1,716	*78,271
1909.....	93,570	2,849	*96,419

* Includes Canadian output

WHAT'S THE ANSWER ?

By the
Light of
the Lantern



Questions
Answered
for
Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. In future, we shall be compelled to limit its scope to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered in this department.

WHAT is the length of the snow-sheds on the Southern Pacific in Nevada?

(2) Describe the bridge-trestle, or fill, over Salt Lake, giving length, saving in miles, time, etc.—J. A. D., Bristol, Pennsylvania.

(1) There are forty miles of snow-sheds on the Southern Pacific, up through the Sierras. In these sheds are seventy-five million feet, or thereabouts, of lumber. Every year five million feet of lumber is used for repairs and renewals. The cost of the sheds, for lumber alone, is \$30,000 per mile. It is said that, up to date, the total cost of installing and maintaining these indispensable structures has been \$30,000,000.

(2) The Great Salt Lake "cut-off" begins at Ogden, Utah, and, after crossing the lake, follows the bed of another prehistoric lake to a junction with the old line at Lucin, Nevada. It was built to take the place of the long serpentine route between the same points, which passed around the north shore of the Great Salt Lake, and over Promontory Mountain, where, on May 10, 1869, the last spike was driven in the all-rail line from ocean to ocean.

From dry land to dry land the "cut-off" covers twenty miles of pile construction,

and as an example of engineering and an illustration of ingenious and substantial construction there is nothing comparable with it anywhere. It was opened November 28, 1903, and took two years to build. It sweeps away 43.77 miles, eliminates 3,919 degrees of curvature, and 1,515 vertical feet of grade; cuts down the running time of the fastest train two hours, and through its practically gradeless route increases the tonnage movable per horse-power almost beyond power to calculate.

The figures referring to curvature and grade may be rendered clearer and more interesting by a little elaboration. Each degree of curvature represents the segment of a circle, and there are 360 degrees in a circle. Put these degrees of curvature together into circles, and it will be seen that between Ogden and Lucin there were 11.88 circles, and that every train of the old route not only covered the air-line distance, but ran around the 11.88 circles besides. The number of vertical feet disposed of was 1,515.

In order to overcome this grade the train, by the old way, was lifted above the road-bed of the "cut-off" to a height equal to 1,515 vertical feet. Calculate the weight of

a loaded car at 66,000 pounds; calculate that it takes one horse-power to raise 33,000 pounds vertically one foot per minute, and that, therefore, it would require two horse-power to raise the loaded car vertically the same distance per minute; multiply by the 1,515 feet of grade disposed of; multiply the car by the number of cars in the ordinary length of train; multiply the train by the number of trains represented in the vast yearly business of the road; add the aggregate of friction, and you will have an approximate idea of what the Great Salt Lake "cut-off" means in the economy of the road's operation. There are other figures equally interesting, and here they are in a nut-shell.

The road rubbed out was 146.68 miles long, the "cut-off" is 102.91 miles long. Twenty miles an hour was pretty good time on the old line, and never a train toiled over it without a monster helping engine at its head. By the new way, there are no helper engines, and now hours of running time are saved. It seems incredible, but it is true, nevertheless, that the cut-off, of 102.91 miles, is but 1,708 feet longer than an air-line, and this in a mountainous country.

WHAT is the best rule for the safe load of rails?—C. H. Middletown, New York.

Each ten pounds weight per yard of ordinary steel rail, properly supported by cross-ties (not less than 14 for 30-foot rail) is capable of sustaining a safe load per wheel of 3,000 pounds.

J. W. S., Scranton, Pennsylvania.—The signal engineers of the roads requested are as follows: Grand Trunk, W. H. Patton, Toronto, Ontario; Michigan Central, E. A. Everett, Detroit, Michigan; Union Pacific, J. C. Young, Omaha, Nebraska; Oregon Short Line, E. W. Newcomb, Ogden, Utah.

WHAT form of air-brake is in general use, high-speed or quick-action?

(2) Does the term "automatic" apply equally to the above?

(3) What kind of air-brake is used on trolley-cars?

(4) Is the Westinghouse brake used in Europe as much as in America?

(5) What other good company besides Westinghouse makes air-brakes?

(6) Can there ever be a thirty-hour train between New York and San Francisco, or an eight-hour train between New York and Chicago?

(7) How does an oil-burning locomotive work?

(8) Why is the rolling stock of European railways built different from ours?

(9) Do you think that electricity will take the place of steam?

(10) Will the monorail take the place of the two-track system?

(11) Where can I get a book naming the employees which make up a railroad?—C. F. E., New York City, New York.

(1-2) The high-speed, which embodies the quick-action, is in general use on passenger-trains; the quick-action on all trains. The term "automatic" applies to all air-brakes in present use for train control.

(3) Straight air-brakes, supplied by electric pump.

(4) No, the Eames Vacuum Brake is in general use in passenger service, at least in England, and to some extent in freight service.

(5) The New York Air-Brake Company.

(6) Not in the present stage of the development of steam-power, or in the conditions under which it is employed.

(7) The oil leads from the tender to a burner in the fire-box, and, emerging from the mouth of the burner, is vaporized with resultant violent combustion when ignited. The fire-wall, or arch, is arranged in the fire-box to delay the escape of the flames toward the boiler-tubes until they have swept over the top of the arch, thus allowing equal effect on all portions of the fire-box.

(8) Because the conditions, and especially the business procedure is along altogether different lines, a thorough analysis of which would be too long for this department. What Europeans have in their country serves their purpose admirably, although it would prove inadequate in this country. They have not found that either our rolling stock or methods are any improvement on what they use, because the latter have become adapted to their peculiar requirements.

(9-10) No, to both questions; at least, not in season to occasion any concern to those who operate the locomotive.

(11) We don't know of any. Past issues of the magazine containing the self-help feature have covered thoroughly the various departments of the railroad, but there has, of course, been no compilation of all employees in a single article.

WHAT are the qualifications and duties of a train auditor, and what does it pay?—L. S., Verona, Mississippi.

They are called collectors in the East, the designation you mention applying largely in

the West and Middle West. Their duties are to collect the tickets, and look after the transportation generally, in order that the conductor will be left unhampered to run his train. As a rule, however, you will not find them on a train unless the travel is so heavy that the conductor cannot "work" it properly between stopping points. For instance, on the heavy trains of the New Haven road, out of New York, it is necessary to have a collector to assist the conductor until New Haven is reached, after which he goes with his train alone to Boston. The same thing applies on many Erie trains out of Jersey City, the conductor being unable to get all the tickets unaided before the first stop. We are in doubt as to what compensation they do receive in the West, but in this section the pay is about \$75 or \$85 a month. They are promoted from baggage-masters or trainmen.

J. S. N., Wichita Falls, Texas.—Fifty-five and one-half miles in fifty minutes from Atlantic City to Camden, New Jersey, is the fastest regular scheduled short-distance train in this country, and it is made every day in the year by the Reading Railroad. We can't find any record of such time on the road you mention, but if correct, it is on a par with the above.

HOW much horse-power, or fraction thereof, will a miniature locomotive develop that has a boiler of 12,000 cubic inches capacity, or is 4 x 1½ feet? The two cylinders are 6 x 4 inches, and the two driving-wheels are 14 inches in diameter. The boiler is built to hold 150 pounds pressure. Please tell me what you think of such dimensions, and state improvements that could be made.—R. W. B., Newmarket, New Jersey.

The dimensions which you give are all wrong for the best results. Presuming that your figures for the size of the cylinder should be reversed, viz.: 4 x 6, instead of 6 x 4 inches, then the stroke is too long; the driving-wheels are too high, and the diameter of the boiler is disproportionately large to its length. Still in order to give the information asked regarding horse-power, based on your figures, it is necessary to revert to the following formula:

$$\frac{C \times S \times P \times (M. P. H.)}{D \times 375} = \text{Horse-power, in which}$$

C is diameter of cylinder in inches.
 S, length of stroke in inches.
 P, mean effective pressure at given speed.
 M. P. H., miles per hour.
 D, diameter of driving-wheel in inches.

Assuming "M. P. H." to represent ten miles per hour, at which speed these models are usually run; and for "P," 127 pounds pressure, on the common rule of 85 per cent of boiler pressure for mean effective pressure, and substituting these values in the formula we have:

$$\frac{36 \times 4 \times 127 \times 10}{14 \times 375} = \text{About 35 horse-power—an absurdity.}$$

Locomotive design must be gingerly approached, whether in models or actual practice, and we think that the best thing you can do is to correspond with some of the firms who manufacture parts for model locomotives, and they will set you right regarding the proper dimensions. You might take the matter up with the Sipp Electric & Machine Company, Paterson, New Jersey, who deal extensively in working locomotive models.

R. G., Mount Vernon, New York.—It would be impossible in the space limitations imposed through the crowded nature of this department to list all of the railroad systems in this country and Canada, especially as you also desire the component roads of each system or group. Would suggest that you refer this to the editor of the *Railroad-Age Gazette*, New York City, who may be able to send you an issue of that journal wherein the information you want has been compiled.

TO whom will I write for a position as fireman on the New York division of the Pennsylvania Railroad?

(2) Has the Wabash an engine with a cylinder larger than others of the simple type?

(3) Has the Santa Fe an engine with four cylinders, and both pistons working together on the same cross-head?—A. J. E.

(1) F. A. Smock, M. M., Meadows, New Jersey, can start your application on the right track.

(2) We don't know exactly what you mean. The cylinders of their compound engines, if they have any, are, of course, of a larger diameter for the low-pressure than for the high-pressure, but if we are to view your question that the Wabash has a simple engine with the largest cylinder diameter, irrespective of compound practise, the answer is, no. The New York, Susquehanna and Western Railroad's No. 140, of the simple type, has cylinders 28 inches in diameter and 32 inches stroke. This is the largest diameter for that type of which we

have any record. This engine is at present in helping service out of Avoca, Pennsylvania, and leased to the Erie Railroad.

(3) The Santa Fe, up to a recent period, at least, had several engines of the type indicated. They represent the original Vauclain four-cylinder compound, arranged with the high and low pressure cylinders one above the other, and both piston-rods connected to the same cross-head, using one set of guide-bars. There are many of these remaining on various roads throughout the country which have not been changed to simple engines.

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DO you know of a railroad under construction from Salt Lake City, Utah, to San Francisco, known as the Western Pacific? Where are the general offices located, and who are the superintendents with authority over the portion running into California?—G. H. T., Texuco, New Mexico.

No operating department has as yet been organized on the Western Pacific. The office of the president, E. T. Jeffrey, is at 195 Broadway, New York. The construction work is being actively pushed under the following division engineers: Charles Harlowe, Cobre, Nevada; T. J. Wyche, Salt Lake City, Utah; J. Q. Jamieson, Clio, California; Emery Oliver, Oroville, California, and J. T. Williams, San Francisco.

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A. R., Sheridan, Wyoming.—You are somewhat mixed in regard to the telephone system of despatching. The scheme provides for operators on the line to receive the orders, the same as by telegraph, and they are not handled from the wire by the engineers or conductors except under exceptional conditions. The nine-hour law, so-called, is intended to limit the hours of operators, and not road crews, who come under the sixteen-hour law. If circumstances should arise making it necessary for trainmen to use the telephone after being on duty nine hours, it would not appear that any law is violated, as they are sixteen-hour men. At all events, there are provisions in each law covering emergencies.

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WHAT are "31" and "19" orders?

(2) Can a man be an engineer if he wears glasses?

(3) When No. 2117 of the Baltimore and Ohio was built was it the largest engine in the world at that time?

(4) Where is the Pittsburgh and Moon Run Division of the P. and L. E. R. R.?—F. B. S., Monessen, Pennsylvania.

(1) They are the two forms adopted by the Standard Code for the transmission of train orders by telegraph.

(2) It would depend entirely on the visual defect for which the glasses were worn. It is not likely that a fireman would be promoted under such conditions, but instances can be remembered where old engineers have been allowed to assume them and kept at work.

(3) This engine was built in 1906, and has a total weight of 229,000 pounds. At that time it was exceeded in weight by other Pacific type engines as follows: Erie, No. 2511, weight 230,500; Northern Pacific, No. 2175, weight 240,000; Atchison, Topeka and Santa Fe, No. 1800, weight 248,200; and Lake Shore and Michigan Southern, No. 4724, weight 233,000. You will note that the examples of heavier engines are confined to the type represented by Baltimore and Ohio 2117. There were many freight-engines at that time on various roads with a much greater total weight than hers.

(4) It appears as an independent railroad between the points mentioned; 5 miles long, standard gage, 2 locomotives, and 778 cars. M. H. Taylor, Pittsburgh, Pennsylvania, is president.

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E. M. B., Barrackville, West Virginia.—The officials of the Chesapeake and Ohio Railway, with headquarters at Huntington, West Virginia, are: C. P. Snow, division superintendent; H. R. McLaughlin and E. E. Winters, train-masters; F. S. Rockwell, chief train dispatcher; C. H. Terrell, master mechanic; C. B. Harwood, foreman painter; R. S. Rogers, foreman car department; R. W. Turney, foreman machine department; T. J. Bullock, road foreman of engines; M. I. Forbes, division engineer, and T. W. King, supervisor of bridges and buildings.

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T. A. P., Cleveland, Ohio.—(1) A freight-conductor certainly occupies a higher plane in the service than a passenger-brakeman, or trainman, as they now designate them.

(2) Brakemen must begin on freight, on the majority of roads, otherwise they cannot reach the position of conductor, in either freight or passenger service. If they start as passenger trainmen they may in time become collectors or train auditors, but, as a rule, the only road to the conductor's berth lies through the freight service.

(3) Age requirements vary on different roads. Twenty-one years is generally regarded as the minimum for employment.

(4) It is impossible to even give an approximate average regarding how long a

man must brake before promotion. The latter is very slow, at least in the eastern section, and it might be five or seven years, if not longer.

(5) The average pay of brakemen may be said to be \$2.25 per day, or one hundred miles, and for conductors \$3.50, but these quotations are really of little value, as the scale shifts tremendously, dependent on the section of the country and the strength of the existing agreements.

W. T. B., Knoxville, Tennessee.—The way you picture the occurrence seems to put the blame for the train getting by squarely on the day-man, and that is the way it looks at this long range. But it is always extremely hazardous to even venture an opinion concerning responsibility for error unless in full possession of the material gathered during the investigation.

W HAT is the average heat which is attained in a hot box? Is there any device on the market to eliminate the trouble?—H. S., Detroit, Michigan.

There is no strictly reliable data for this temperature, as it would be largely dependent on the composition of the soft metal which forms the liner for the brass proper, and on which the journal runs. The metal ordinarily employed for car brasses is specially hard babbitt.

This will start to run, or fuse, at about 400 degrees F. This temperature is, of course, abnormally high for a hot box, and would imply a melted-out brass. The term, as you no doubt are aware, is freely applied, and may mean only the packing on fire, with the bearing relatively cool. In regard to special devices to minimize hot-box troubles, these are confined to slight differences in the interior of the journal-box, which encloses the journal of the axle, the journal bearing and key, and which holds the packing for lubricating the journal.

That any one of these departures is any more serviceable in the long run than the American Railway Master Mechanics Association journal-box, which is in general use, is largely speculative. The idea on which these patented devices is based, is simply to keep the oil-soaked packing in more uniform contact with where it will do the most good.

The best safeguard is, of course, to give the boxes the necessary attention, which they fail to receive more than any single item about the railroad, viz.: See that none of the lids have been lost, allowing dirt to enter; that they contain sufficient packing to take care of them, and that the soft liner

mentioned is not worn down to a point where the brass itself will run on the journal without the interposition of an anti-friction metal. Ninety per cent, we believe, of hot-box troubles arise from lack of care, as the existing appliances are thoroughly adequate.

L. H. W., Rockport, Illinois.—For books on air-brakes, address either *Railway and Locomotive Engineering*, or *Railroad Age-Gazette*, both New York, N. Y.

WOULD it affect the lead of the valve of an engine, if one would bend the eccentric-blade either up or down? I mean would it affect the lead in the same way as turning the eccentric either ahead or back on the axle, or hooking up or letting down the reverse lever?

(2) How can I calculate the horse-power of a boiler by knowing the heating and grate surface?

(3) Is the Valentine monorail system under construction, and where?

(4) Is the air line electric railway between New York and Chicago completed?

(5) What is the average price of a 200,000 pounds locomotive?—W. M., Natron, Oregon.

(1) Bending the eccentric-blade, as suggested, would have no effect on the total value of the lead; that is, the sum of the omission-port opening at each end of the stroke. It would simply serve to distort the motion by rendering unequal the leads on either side of the valve, and the exhaust would likely beat "out of square."

The maximum travel of the valve is fixed by the throw of the eccentric, which is permanently keyed to the shaft, and the proper length of the eccentric-blade is that which will permit the valve to move an equal distance on either side of an imaginary line drawn through the center of the valve-seat. Hence the length of the eccentric-blades should be regarded as really permanent.

They are never changed except to correct inequalities in the valve travel mentioned. Moving the reverse-lever on the quadrant simply lengthens or shortens the valve travel on the seat, without interfering with the equality of the travel, provided the eccentric-blades are of the proper length.

(2) You cannot calculate the horse-power of a boiler from the grate surface only. You might allow ten square feet of the total heating surface to each horse-power, which is a rough-and-ready rule.

(3) Have no record of the system named.

(4) The New York and Chicago Air-Line Railway is not completed as originally proposed, but this is the extent of our knowl-

edge concerning it. We think that the line at present extends from La Porte, Indiana, to the outskirts of Chicago, but of this even we are in doubt.

(5) This year, from present indications, the average price of a locomotive embodying the total weight mentioned will be about \$18,000, provided, of course, that there is no radical departure from existing practise, and that not less than ten are contracted for. There is no reliable estimate for a single locomotive; twenty-five per cent more, at all events.

S. J. N., Brooklyn, New York.—All railroads demand an eye and hearing test for road men entering the service, although on several this is confined to the actual semaphores, lights, and flags used in the operation of the road.

G. C. H., Brooklyn, New York.—A prospective fireman should be twenty-one years old. The time he will be called upon to fire before promotion may range from four to ten years. They pass from the extra board to regular freight service and thence to passenger. On some roads they return to firing freight for the thirty days prior to their final examinations. The pay ranges from \$2.25 to \$3 per hundred miles, dependent on locality, agreements, and service conditions.

C. H. R., Albany, New York.—The list of chief train-despatchers on lines west of the Mississippi River, even if available, is far too long for our columns.

G. H. D., Wayne, Pennsylvania.—After a careful review of late construction we cannot locate any Mallet articulated compound locomotives built for the Chicago and Alton Railroad. Engines of this type are particularly adapted for hauls over heavy grades, such as in mountain railroading, or in helping service. They have not as yet been employed, to any extent, in regular service on low-grade roads.

C. K. D., Elkins, West Virginia.—We think that the company you mention does hold the necessary patents giving the exclusive rights to the peculiarity in air-pump construction which reverses the position of the cylinders as in the Westinghouse practise. This, however, could be determined through direct correspondence with them, and this we would advise you to do.

All the points which you make are very good, and represent, in the main, what has long been our personal idea of the proper arrangement, although you are the first to bring them to our attention. We regret that lack of space forbids reproduction of your interesting letter this month, but it is held with that end in view for the future.

H. A. J., Lowell, Massachusetts.—From Boston to New York, either the New York, New Haven and Hartford, or the Boston and Albany. The fare is \$4.65 over each road. The Baltimore and Ohio, out of New York, seems to cover the other points better, as its main line passes through Washington, D. C., and there are liberal stop-over privileges, but we can't say about stop-overs being allowed in the intermediate points, Philadelphia and Baltimore. You could continue over this same road from Washington to Chicago, which latter is usually regarded as the starting-point for a San Francisco trip. The fare from New York to Chicago is about \$18, and \$50 should cover the remainder of the journey.

J. S., Austin, New Mexico.—It does not appear particularly that anything would be gained by an indestructible seal for freight-car doors. The idea of the existing seal, as you no doubt understand, is to indicate that the car-door has been opened, and not to oppose other than an ethical obstacle to such entrance. If the seal of which you write can be opened without destroying it, it would be the natural inference that it could be restored to its primary condition as readily after the car had been entered. The cost of the existing car-seal is insignificant, and any new device would not impress in that direction. In regard to improvements in mail cranes, best address the chief or division engineer of some large railroad.

ASSUME a one-horse-power engine, with 200 pounds of steam, and another of two-horse-power, of the same size, but with one hundred pounds of steam; which engine will do the most work? —H. M. W., Milwaukee, Wisconsin.

Your question is much involved, and we doubt if the answer will be exactly what you are looking for. The confusing feature is that you have already defined the engines as one and two horse-power, respectively. Then, of course, the second will do twice the work of the first, but, if we are to conclude that the second engine only develops two horse-power with two hundred pounds

of steam, it is only at half its capacity at one hundred pounds, and both engines are therefore equal. The formula for calculating horse-power is pressure (mean effective pressure for stroke), multiplied by length of stroke in feet, multiplied by area of piston in square inches, multiplied by number of working strokes per minute, and the whole divided by 33,000, the result equaling horse-power. You will thus note that the pressure is the controlling factor in the formula, as will be readily evinced by working it out for a number of pressures in connection with the same engine. If this does not explain, let us hear from you again.

D. R. S., Altoona, Pennsylvania.—As we have frequently intimated in this department, the dimensions which we receive from the locomotive builders covering their recent types of construction do not, unless in exceptional cases, give the total length of locomotives, information being confined to the length of the rigid wheel-base; the total wheel-base of the engine, and the total wheel-base of both engine and tender. We correctly quoted in the February number the total wheel-base of Southern Pacific No. 4000, engine and tender, at eighty-three feet six inches, as the longest recorded. No doubt your figures, viz., one hundred and eleven feet ten and one-half inches, for the corresponding dimensions of Santa Fe Nos. 1700 and 1701 is correct, but this does not imply that No. 4000 is not very much longer than eighty-three feet six inches, when the overhang at each end is reckoned with and added. As a rule, the length over all, from the nose of the pilot to the extreme rear portion of the tender frame is difficult to estimate, unless, of course, access may be had to the elevation prints of engine and tender. The total wheel-base is an important dimension, to know whether existing turntables will take care of the engine, but the total length is relatively unimportant.

E. B. G., Charleston, South Carolina.—The only absolute protection we know of against the robbery of car brasses is to police the freight yards and watch the cars. They are bold enough these days to jack them up and haul the brasses out. There are no recent improvements in journal-boxes.

I WISH to ask whether the "General," which you mention in the February "Light of the Lantern," as on exhibition at the Union Depot, Chattanooga, Tennessee, is the actual locomotive run by

Andrews? We know that a photograph was taken in 1864, of the engine actually seized, by a photographer in the Northern army, and is now in the government archives. This shows a type of locomotive made during the late fifties, whereas the "General" resembles a locomotive of days subsequent to the Civil War. Moreover, the name of the locomotive photographed in 1864 is said to have been "Hero."—I. S., Fishkill Landing, New York.

We have never heard a question raised regarding the authenticity of this prized relic. The editor of this department was on one occasion roundhouse foreman on the Southern Railway, with Chattanooga at one end of his jurisdiction, and is quite familiar with the old engine and its history. Certainly if any rumor of doubt were afloat, he occupied a position of such proximity that it could never have escaped him. We are glad to reproduce your letter, as, if there is anything in the point, this is the surest way to bring it to light.

T. P. W., South Framingham, Massachusetts.—(1) Firemen on all roads have to pass an eye and hearing examination, and, on some, the Baltimore and Ohio, for instance, a physical examination as well. To be able to read and write will serve for mental qualifications.

(2) No. Go on the road and learn how to fire.

(3) Twenty-one years is now generally regarded as the minimum age for an applicant.

I S it proper for an engineer finding a distant signal-light out at an interlocking plant to come to a full stop? The distant signal on this road is used as a caution signal only, and in no position indicates stop.—F. A. M., Emporia, Kansas.

Unless the night is sufficiently clear to allow the position of the blade to be seen, a stop is in order. If passed at full speed in the danger position, it would fail in its mission as a cautionary signal on the home. You no doubt have local rules covering this condition, which necessarily must be observed, independent of any opinion here. These lights at times become extinguished, and some roads insist that a full stop be made and the position of the semaphore be closely scrutinized before proceeding. It is then required that an electric signal failure report be turned in by the engineer at the first telegraph office. The best advice is always to err on the safe side, especially in a matter of such importance.

WITHOUT LIGHTS.

BY J. AUBREY TYSON,

Author of "The Man of Straw," "A Railway Pizarro," "The Man Who Lost Himself," etc.

A Man Runs Blindfolded On a Strange Track and Against the Semaphores.

SYNOPSIS OF PREVIOUS CHAPTERS.

FRED ERSKINE has received a letter from the general superintendent of the Chicago, St. Louis and Western Railroad—Andrew Warrington—who was formerly fireman on his father's engine. He has helped put Fred through college, and, upon his graduation, writes him to call at his office in Chicago. Upon arriving there, Fred finds Warrington in great trouble. It appears that bonds to the extent of \$500,000 have been stolen from the safe of the company, and the only ones knowing the combination are the treasurer, Warrington's son, who has been lately speculating wildly, and the general superintendent, himself. Warrington, the father, has had some differences with Henry Burbridge, the president of the company. The directors, siding with Warrington, were disposed to compel Burbridge to resign, and elect Warrington his successor. On account of the gambling and speculating of his son, Warrington is compelled to suspect him, but at the same time imagines it may be a plot of Burbridge's and the treasurer, Stanwood, to implicate his son, and thereby discredit him, causing him to resign from the company. An Englishman, Montresor, who is on friendly terms with Warrington's wife and daughter, is supposed to know more than any one about the disappearance of the bonds. The proposition made to Fred is that he is to trace the bonds, find out who was instrumental in their disappearance, working independently of the detectives already engaged, and without communicating in any way with Mr. Warrington during the time, return the bonds within thirty days. It is a stupendous task. Mr. Warrington requests him to call that evening and escort his daughter, Louise, to the opera, as he has reasons to believe that she is going to meet Montresor, and he wants Fred to be in a position to know all the details. Instead of going to the opera, Louise has secretly ordered the driver to go to Lincoln Park. Here Louise accuses Fred of being a spy, and tries to escape from the carriage. Fred follows her, and is accosted by a man who wishes to speak to him privately. He follows the man, and, while speaking to him, receives a blow on the head that knocks him senseless.

CHAPTER V.

Side-Tracked.



SEVERAL minutes passed before a realization of his situation began to dawn upon Erskine's mind; then he feebly raised himself to a sitting position and looked around him. He saw that he was alone. The carriage that had brought him and Miss Warrington to this spot had disappeared, as had also Montresor and the unseen man who had struck him down just after the Englishman had assaulted him.

With a low-muttered oath, the Altoona man rose from the ground. Passing a hand over his hair, he found that blood was issuing from a scalp wound at the back of his head.

"Well, the old man was right enough," he muttered. "Montresor's trail and mine have crossed. My eyes were closed, however, and he got me foul, and now Andrew Warrington's enemy is mine. Until I get this fellow Montresor on his back, his trail and mine are one."

Retreating farther into the shadow of the clump of trees, he seated himself on a rock and, leaning back, he clasped his hands over one of his knees.

"Now, where do I begin?" he mused.

Frederick Erskine came of good old fighting stock, and the most dangerous fighter always is the one who keeps his head. Though anger still smoldered dully in his eyes, the young man made a determined effort to review the situation calmly. This was difficult at first, for it was only gradually that he recovered from the effect of the blow that had rendered him unconscious.

He asked himself how it had come to pass that Montresor so soon had recognized him as an enemy. Then he remembered that it had been Louise who had first revealed the fact that his relations with her father were known to others. How had she come to believe that he was a spy?

In a short time the situation grew clearer to him. Louise had entered the library while Warrington was in the act of giving him the photograph of Montresor, and this fact doubtless had excited suspicions which she had communicated to Montresor, either by telephone or a special messenger.

This theory was, in some degree, verified by the manner in which Montresor had demanded the surrender of the photograph. With a more rapidly beating heart, the young man thrust a hand into the inner pocket of his coat. The photograph was gone, but this was not all he had lost.

He had been robbed of the envelope containing the three thousand dollars which had been given to him by Warrington!

Bewildered, baffled, and thoroughly unstrung by the suddenness with which this series of unfortunate incidents had occurred, Erskine rose weakly and looked ahead of him with unseeing eyes. For several minutes he stood motionless; then, with shuffling, stumbling steps, he issued from the clump of trees and followed the course of the roadway.

He had proceeded only a few paces when he came to a drinking-fountain for horses. There, with shaking hands, he washed his wound; then, after drying it with his handkerchief, he continued on in the direction of the lake front.

Frederick Erskine was young, and this was the first time in his life that he had come face to face with a heavy respon-

sibility. He knew now that, young as he was, the turning-point of his whole career was reached. Though he loathed the task that had been forced upon him, it was impossible for him to shirk it.

For years he and his father had been under obligations to Andrew Warrington, and now Warrington, in distress, had appealed to him for aid. He had undertaken to recover the bonds, and, hopeless as seemed the task, he must do so. Besides all this, he had an account of his own to settle with Charles Montresor.

But where was Montresor to be found? It now occurred to him that, in view of his loss of the three thousand dollars which had been given to him by Warrington, he would have to draw on his own funds for several days at least. In another week, perhaps, he might achieve something which would enable him to confess his loss to Warrington with a better grace.

As this thought came to him, he halted suddenly. The extent of his own funds consisted of little more than a hundred dollars, which he had carried in a card-case in one of the pockets of his vest. To this pocket he raised his hand instinctively.

This, too, had been taken from him while he lay unconscious! In a pocket of his trousers were several silver coins, however, and, clutching these, he resumed his way with quickened steps.

"Fair means or foul!" he muttered, repeating Warrington's injunction. "Well, the first blow in the fight was struck by Montresor, and it was foul. More than this, the man already has proved himself to be a thief. If it takes a rogue to catch a rogue, I'll learn his game and play it. I have my orders, and I'm going to take the old man at his word. By fair means or by foul, I'm going to land those bonds—and Montresor!"

Walking on now with steady steps, Erskine began to formulate a plan of action. It was doubtful whether he could find Montresor again without dogging the steps of Louise Warrington. Well, he would do this, then. Beautiful as she was, she had lost his respect, and had inspired his resentment. From this moment on he would work only in the interests of her father. But, in order to do this, he would require funds. He must write to

Warrington, and tell him of the misadventure that had befallen him.

Upon leaving the park, the young man boarded a car which took him to his hotel. Arriving there, he wrote a letter to Andrew Warrington, describing briefly what had happened. This he despatched by a messenger to Warrington's residence. In an hour he had his answer.

From an envelope Erskine drew a sheet of paper, in which were enclosed ten one-hundred-dollar bank-notes. On the sheet of paper was written the following note:

DEAR BELLEVILLE:

Enclosed herewith find \$1,000. When you require more, inform me of the fact at once, but spare me all accounts of your troubles. I desire no explanations. Get to work and keep your confidences to yourself. Burn this note at once.

The note was unsigned. Erskine applied a lighted match to it, and then dropped it into an ash-receiver. When the paper was consumed, he left the room and summoned a cab.

"Lake Shore Drive," he said as he prepared to step into the vehicle.

"What number?" asked the driver.

"Put me down at the beginning of the drive," directed Erskine. "But get there as quickly as you can."

When the Lake Shore Drive was reached, Erskine directed the driver to turn into a street about half a block south of the Warrington residence and there await his coming; then, when the cab moved off, he walked deliberately along by the sea-wall until he arrived opposite the street in which he saw the cab drawn up at the spot which he had indicated.

Assured that the cabman was acting in accordance with his instructions, Erskine retraced his steps for a little distance; then, glancing around to satisfy himself that he was unobserved, he climbed over the sea-wall and dropped down to the beach.

As has been said, the night was moonless, and the stars which, before, had been visible, now were obscured from view by a mist which, for the last half-hour, had been drifting over the lake and settling down over the city. A faint breeze was stirring, and this was charged with the dampness of the great lake over which it had swept.

Finding a large boulder near him, Er-

skine was about to seat himself upon it, and was in the act of drawing his cigar-case from his pocket when he heard, in the distance, the deep, sonorous stroke of a bell. This stroke was followed by others, and when he had counted eleven they ceased.

"Eleven o'clock," he mused. "If she has not already returned, she—"

He started suddenly as he became conscious of the fact that in the air about him was the odor of tobacco-smoke. He had been gazing abstractedly into the darkness that lay over the lake, but now he turned abruptly to his left. There he saw something that was moving slowly toward him.

It was the faint glow of a lighted cigar!

CHAPTER VI.

The Man Behind the Cigar.

"ANOTHER signal, eh?" Erskine muttered. "Shall I run it, or slow down?"

To his ears now came the soft, measured crunching of gravel, and the sound warned him that, in the darkness, it would be difficult for him to make a noiseless retreat. He decided, therefore, to remain where he was.

The cigar which Erskine already had taken from his case was between his teeth. He drew a match across the boulder on which he was seated, and raised it to the weed.

The sound of crunching gravel ceased, and the glow of the cigar became stationary. Keeping an eye over his left shoulder, Erskine lighted his own cigar and waited.

"Damp evening," the young man said.

There was no reply, but a moment later the gravel crunched again, and the glowing tip of the cigar drew nearer.

"Who the deuce are you?" growled the stranger.

Erskine hesitated. The voice was heavier than Montresor's, and he wondered if it was that of the man who had struck him after he had received the blow from the Englishman.

"Well, it's a little dark for the exchange of cards just now, I'm afraid," he said.

Again the stranger halted. "If you're

one of them I'm takin' you for, I guess you're pretty much at home in dark places," the newcomer retorted.

"Indeed!" Erskine exclaimed. "Would it be too much for me to ask who it is that you take me to be?"

"Oh, one of Montresor's tribe, I suppose," replied the other surlily.

"Then you are not a friend of Montresor's, I take it," said Erskine, puffing thoughtfully at his cigar.

With a muttered curse, the stranger slouched slowly past Erskine, who, watching him warily, retained his seat on the boulder.

"Don't be in a hurry," the young man protested, as the other was in the act of moving away. The stranger halted.

"What has caused you to think I am a friend of Montresor's?" Erskine asked.

"Well, you know him, don't ye?" asked the man, who spoke in the tone of one who expected an affirmative answer.

For a moment Erskine hesitated. Was this man an enemy of the Englishman's, or was he one of his confederates? If he was an enemy, it might be possible to use him to advantage. If he was a confederate, Erskine wanted to see him in the light. If he were not dissembling, it was plain that he had some grievance against Montresor, and that he had some reason to suspect that Montresor or his friends had some object in lurking in the vicinity of the Warrington house.

"I met Montresor for the first time, tonight," Erskine answered quietly. "The meeting was quite accidental, on my part, however, and I will frankly confess that it was not altogether to my liking. From the way you have spoken of him, I should judge that you know rather more of him than I do.

"If you have a grudge against him, I'm in a mood to help you to get even. If you can persuade me that he really isn't a bad fellow, why, then, perhaps—"

"You're in a mood to help me to get even, hey?" muttered the stranger thoughtfully. "Well, I hadn't thought anything about tryin' to get even, and it wouldn't do me no good, as far as I can see. Snake-killin' ain't in my line when there's better business to be done. What's Montresor done to you?"

"Oh, he and one of his friends knocked me out and robbed me of a tidy

bunch of money—that's all," Erskine answered carelessly.

"Robbed ye of a tidy bunch of money!" exclaimed the stranger, and there was a note of incredulity in his voice. "I guess you're just a little bit off on that, ain't ye, mister? Montresor is about as rank a scoundrel as ever wore the devil's brand, but highway robbery—well, I reckon he'll sort of keep above that for a while—if he can. Where did it happen?"

"In Lincoln Park."

"When was it, mister?"

"To-night."

The stranger drew nearer Erskine, as he asked: "You was walkin' through the park?"

"I had been riding in a carriage, but I had a disagreement with the person with whom I had been sitting, and I got out. As the carriage moved away, Montresor and a companion attacked me, and did me up. When I recovered consciousness my money was gone."

"The deuce it was!" the stranger muttered; then, after a pause, he added: "Well, mister, you ain't the only one Montresor robbed to-night."

"What do you mean?" demanded Erskine, vainly striving to see the outlines of the other's face in the darkness.

"I mean he robbed me of my job," the stranger answered sullenly.

"Indeed! What kind of a job was that?"

"Until two hours ago I was coachman for Mr. Warrington."

Erskine started. "You were the coachman of Andrew Warrington?" he exclaimed.

"Yes, sir," sighed the man.

Erskine rose slowly from the boulder on which he had been sitting. "Then you drove the carriage from which I stepped only a moment before Montresor assaulted me," he said.

"Hey! What do you mean by that?" the stranger muttered.

"I mean that the carriage from which I stepped was Mr. Andrew Warrington's."

"There ain't no carriage or horse of Mr. Warrington's left his place to-night."

"Come, come, my man—you're wrong. At half past seven—"

"At half-past seven o'clock to-night Mr. Warrington's carriage, with me on the box, was in front of the house, waitin' to take Miss Warrington to the Auditorium; but Miss Warrington weren't there. She'd gone off in another rig what drove up before, and then— But, Lord love us, mister—you ain't the gentleman—the gentleman Mr. Warrington said went with her instead of him! It weren't Miss Warrington you had that disagreement with before you left that carriage!"

"Yes," Erskine answered shortly.

"Where is she now?" asked the stranger in a voice that shook a little.

"She drove off while I was being attacked by Montresor."

"How did you know it was Montresor, sir?"

"I had his picture in my pocket. But now let me know a little more of yourself. You have been discharged by Mr. Warrington, you say?"

"Yes, sir—after servin' him for twelve years."

"Why did he discharge you?"

"Because I had been takin' Miss Warrington's orders too faithful—drivin' her to houses of Montresor's friends, without tellin' Mr. Warrington afterward, and sometimes takin' messages from her to Montresor."

"Where did you deliver those messages to Montresor?"

"Sometimes he or some of his friends would wait for them here."

"Do you know where he lives?"

"No, sir. He's too foxy to let any one know that. I don't believe that even Miss Warrington knows where Montresor lives."

There was a pause; then Erskine asked: "Miss Warrington seems to be pretty fond of this fellow Montresor, does she not?"

"Why, I can't say much as to that, sir," returned the other doubtfully. "She meets him pretty often, and she sends him letters; but, somehow, when they are together she's as cold as ice to him, and he's the only one I ever saw her snappish to. She's a fine young lady, sir, and what use she could find fer a feller like Montresor I never could quite figure out." He paused; then, speaking abstractedly, he added: "There's something queer about the thing, and no mistake, sir—but there's

something that makes me think that Miss Warrington has little likin' for that sneakin' Englishman."

For a minute neither spoke. Erskine was the first to break the silence.

"From the way you have spoken, I should judge that you were well disposed to Miss Warrington," he said.

"I'd fight a dozen husky chaps at once at a single word from her, sir," replied the former coachman; then, after a pause, he growled: "And if I didn't lick 'em they'd have to take me away in an undertaker's wagon, for I'd die without a whimper if I thought I was savin' her from enemies."

"What's your name, my friend?" Erskine asked.

"Barney McGrane, sir."

"What were your wages while you were working for Mr. Warrington?"

"Forty dollars a month."

"I will give you fifty."

"What to do, sir?"

"To help me land this infernal scoundrel, Montresor."

McGrane hesitated. "Perhaps you are a detective," he said doubtfully.

"Not a professional detective; but it is my purpose to do a little detective work on my own account for the next two or three weeks, and Montresor is the man I am after."

"You are going to get back your money if you can?"

"No. I'm afraid the three thousand will have to go by the board. Montresor has got away with a far bigger sum than that—a lot of bonds that belong to a friend of mine. Those are what I am seeking now, and I think that you can aid me in my effort to recover them. Incidentally, I think that between us we will be able to get Miss Warrington out of the clutches of Montresor; for it seems clear enough that he has some sort of hold over her. Will you help me?"

"Well, I don't know, sir," McGrane replied doubtfully. "How long have you known Miss Warrington?"

"I met her for the first time to-night."

"And Mr. Warrington knew that you were going with her to the Auditorium," said McGrane thoughtfully.

"Yes. I have known Mr. Warrington for several years."

"Well, that's good enough for me,"

McGrane replied. "Mr. Warrington wouldn't have let her go off with you if he didn't think you was all right. But what was it that you and Miss Warrington disagreed about?"

"Montresor."

"Then, she was going to meet him in the park. That's the reason she had that other rig call for her before I had time to get around."

"It looks like it, Barney."

"I'm with you, sir. When do you want me to begin?"

"Right now."

"What am I to do?"

"You are to follow implicitly all instructions that I may give you. Moreover, as I am pledged to secrecy in this affair, you are to ask me for no explanations other than those which may be necessary to enable us to work in harmony with one another. Will you agree to this?"

"Yes, sir."

"Let us shake hands on it, then."

As their hands met in the darkness, McGrane started and drew back suddenly.

"Get your heel on that cigar," he whispered.

"What is it?" Erskine asked as he dropped his lighted cigar to the ground and placed his foot upon it.

"Hark!"

Then the young railroad man heard it, too—the low-speaking voice of an advancing man!

"It's some of the Montresor crowd," whispered McGrane, as he laid a hand on one of the arms of his companion. "This is one of their meeting-places. Let's move on a bit until they stop."

CHAPTER VII.

On the Shoals of Indecision.

WITH a more rapidly beating pulse, Erskine turned to the left, and, followed by his companion, he moved cautiously along the beach in the same direction in which the unseen newcomers were proceeding. At length he halted abruptly as the hand of McGrane clutched his sleeve.

"Wait!" whispered McGrane. "They have stopped where we were standing."

As Erskine listened, he found that the

sounds of voices and footsteps had suddenly ceased.

"Want to hear what they're sayin'?" asked McGrane, after a pause.

"Yes. Let's get a little closer to them," Erskine answered.

"Where the devil's the boat?" a voice only a few paces distant asked querulously.

Erskine and McGrane instinctively sank to their hands and knees. McGrane tapped his companion twice on the shoulder.

"Yes—yes!" Erskine whispered.

Both had recognized the voice of Montresor.

"I'm afraid that you're going a bit too far this time, Monty," growled another voice.

"Have to do it, Slevin," Montresor replied in a tone of gloomy conviction. "The fool's streak of yellow is growing so strong that every hour finds him more dangerous. It's ten to one that he will blow the whole thing to the old man before the night is over. The girl half suspects the truth already, and if she learns it all there will be Hades to pay."

"But she played into your hands all right to-night, Monty," protested the other in shaking accents.

"She had to," Montresor retorted savagely. "She failed to meet me afterward, however, and for the last three days it has looked to me as if she had the bit between her teeth. The way she gave the old man the slip to-night is going to bring them into another clash that is likely to be the worst she has had with him."

"Well, she weathered all the others," Slevin said.

"In a way she did, but it seems to me that he already has her on the run. It's clear enough that she let something out of the bag. If she hasn't, how does it happen that the old man has hit my trail? How did it happen that that fool sleuth had my photograph in his pocket? Why did the old man send him off with her? In some manner or other he got wind of the fact that she was to meet me somewhere, and he wanted the sleuth to get a line on me and follow me if he could. Oh, the game was plain enough."

To the ears of the listeners there came the sounds of several muttered words, which, however, were unintelligible. A

long pause followed, then the man who had been addressed as Slevin spoke.

"The Inter-State's got the paper?" he asked.

"Yes."

"But it doesn't deliver at Tacoma."

"It transfers to the Dale at Wapiti Falls. If we leave at six we can beat it out."

There was another pause; then Slevin asked:

"Are all the eggs in one basket?"

"All in the machine-box. But why in the deuce doesn't the boat—"

"Hark!" Slevin exclaimed in a voice that barely reached the ears of Erskine and his companion, who, though they listened intently, failed to hear the sound or sounds that had startled the speaker.

For a moment all was still; then Erskine and McGrane heard the sounds of retreating footsteps.

"What's the game?" whispered McGrane.

"Hush!" Erskine cautioned.

From out of the darkness that concealed the waters of the lake came the low, measured click of oarlocks. A moment later two low whistles sounded from the beach. These were answered by two whistles from the unseen boat, then all was still.

"Come—let's follow them," Erskine muttered.

They had taken only a few steps, however, when they were brought to a standstill by the sudden flare of a match about fifty paces in front of them.

"They've stopped," said Erskine quietly. "If we—"

Startled by the sounds of quick footsteps near the sea-wall above him, Erskine allowed the rest of the sentence to die upon his lips.

Though the beach was so dark that it was impossible for Erskine to see the features of his companion, the light from a lamp on the drive enabled him to see the outlines of the face of a man who now leaned over the wall.

McGrane grasped the arm of his companion.

"Joe Warrington!" he exclaimed in a warning voice.

Moving quickly closer to the wall, Erskine and McGrane watched the man who was bending over it.

For a moment Warrington seemed to hesitate; then, with a rapid movement, he swung himself over the wall and down to the beach.

A score of warning voices now seemed to be sounding in Erskine's ears. Not for a moment did he doubt that the men whose voices he had heard were meditating some act of foul play against the young man who was preparing to meet them.

It was essential that young Warrington should be warned, but how was this to be done without revealing the fact that the words of Montresor and his companion had been overheard?

If the nature of this conversation was revealed to Warrington, would he give the story credence? If this should not be sufficient to shake his faith in Montresor, was it not probable that he would acquaint the Englishman with the fact that his conversation had been overheard? If he did this, there might yet be time to effect some change in the plans which had been partly disclosed by the conversation in the darkness.

And so Fred Erskine found himself on the shoals of indecision. He must decide quickly, and he must stand or fall by reason of the action which, with only a few moments for reflection, he must now decide to take.

Joe Warrington's feet had scarcely touched the gravel of the beach when Erskine strode quickly toward him.

Young Warrington, hearing the sounds of his steps, turned sharply.

"Montresor?" he queried in a low voice.

"Yes—Montresor," Erskine answered in a low, tense voice.

Scarcely had the Altoona man spoken when his right fist shot out and, crashing against the side of Warrington's head, sent him reeling to the wall. Quickly following his staggering victim, Erskine struck him two more blows that felled him to the ground, where he lay unconscious.

A hoarsely muttered oath behind him caused him to turn suddenly, and a moment later he dodged a blow which McGrane aimed at his head.

"What devil's game is this you're playing?" demanded the astonished coachman.

"Hush!" commanded Erskine, and as he spoke he gripped McGrane's wrists.

It was in vain that the coachman strained every muscle to regain his liberty.

"What's your game, you infernal—" McGrane began.

"Stop it!" Erskine muttered. "We have no time for explanations, and you promised to ask for none. We have saved this man's life, and it is now up to both of us to keep him from losing something that is still more valuable. He will recover presently, and when he does we must see to it that he believes that he was struck down by Montresor."

From the point at which the flare of the match had been seen only a moment before, came the sound of a low whistle. Erskine and McGrane stood silently beside the inanimate body of Joe Warrington.

At length the whistle was repeated; then Erskine heard the sound of advancing footsteps.

"You there, Joe?" came a voice.

"Steer him off," directed Erskine, addressing McGrane. "Tell him it was you who just came over the wall."

The coachman muttered something under his breath; then, after a brief hesitation, he advanced slowly to meet the unseen speaker.

"I ain't the man you're after, Mr. Montresor," McGrane said doggedly.

"What the devil are you doing here, McGrane?"

"Same as you, I guess," the coachman growled.

"Did any one send you here?"

"No. I ain't takin' no orders from no one to-night."

"Was that you who just got over the wall?"

"I couldn't have got down here without gettin' over the wall," the coachman grumbled.

"All right, Barney," returned the other, more civilly than he had spoken before.

"Are ye lookin' for young Mr. Warrington?" the coachman asked.

"No—no—not particularly," Montresor answered quickly. "I've met him here before, you know, and I—"

"Yes—I know," McGrane answered bitterly.

"Well, good night, Barney."

The coachman made no reply. Erskine, listening intently, heard the sounds of retreating footsteps. As these died away, McGrane slowly returned to where his companion awaited him.

"Now, what does all this mean, sir?" the coachman asked.

"It means—" Erskine began, and stopped.

From that part of the beach toward which Montresor had retreated came a low, scraping sound, and a sullen, muttering voice. This was followed by a silence which was broken at last by the click of oarlocks.

"It means that the body of this young man will not be weighted and dropped overboard from that boat to-night," Fred Erskine finished.

CHAPTER VIII.

The Philosophy of Ananias.

A LOW groan, followed by a faint clattering of stones, indicated that the prostrate man was stirring.

"Now, keep your head, Barney, and let me do the talking," cautioned Erskine, as he knelt down beside Warrington.

"All right, sir," the coachman assented gruffly.

As Joe Warrington rose to his elbow Erskine's hand fell on his shoulders.

"Are you feeling better now?" the man from Altoona asked.

"Who—what has happened?" faltered the bewildered victim of the assault. Then, as his thoughts grew clearer, he asked sharply: "Is that you, Montresor?"

"No, it is not Montresor, but a friend," Erskine answered dryly.

"But it was Montresor who—"

"Yes—yes—it was Montresor who put you where you are," explained Erskine, who, acting on the theory that the end would justify the means, found fiction better adapted to his purpose than truth.

With an oath young Warrington rose. "Well, who are you?" he asked.

"There are two of us," Erskine answered. "I am a stranger to you. The man who is with me is Barney McGrane."

"McGrane!" Warrington exclaimed.

"Yes, sir," spoke up the coachman. "Your father was just after firin' me when I picked up with this here gentle-

man, and he had the kindness to offer me a job of—"

"Of helping me drive off the chaps who had just assaulted you," put in Erskine quickly. "If it wasn't for the assistance of McGrane, your friend, Montresor, and two or three others of his kind would have had you in a boat that put off from the shore just before you recovered consciousness."

"They put off in a boat!" muttered Warrington wonderingly.

"Yes. Before you were assaulted, however, I overheard a little of a conversation that they had here on the beach. From what they said I had some reason to believe that they distrusted you and thought it best to put you out of the way."

"They did, eh?" growled young Warrington. Then, after a pause, he added: "Was that all you heard?"

"No. I heard enough to cause me to understand that if you don't make a prompt and vigorous effort to get out of the trap into which they have led you, it would have been much better for you if you had remained in their hands and been cast overboard after they had rowed you well out into the lake."

"You mean that I would be better dead?"

"Exactly."

"Then I am afraid that I have small reason to thank you for getting me out of their hands," said Warrington gloomily.

"On the contrary, I think I may earn at least a small measure of your gratitude, for I believe that I can put you in the way of saving something that should be more valuable to you than your life."

"Indeed! And what is that?"

"Your honor—and your father's."

For a while the silence was unbroken, then, in a hoarser voice, young Warrington asked;

"What do you mean?"

"The return of certain valuable bonds which recently disappeared from a place to which you had access."

Again a silence fell. Erskine heard the heavy breathing of the man he was addressing.

"You know too much," Warrington grumbled.

"It is little enough," Erskine answered easily. "Still, I think that with the knowledge that I have obtained I will

have little difficulty in running down the men I am after, and restoring the bonds to the place from which they were taken."

"You are a detective?" Warrington asked.

"No. I am a special agent of a person who is scarcely less interested than you are in the restoration of the bonds."

There was another pause; then Warrington asked:

"In whose interests are you working?"

"In your own."

"Who has employed you?"

"I cannot tell you."

A muttered oath fell from Warrington's lips, and he addressed the coachman: "Barney, who is this man?" he demanded.

"Never heard his name in my life, but I think he's right when he says he's a friend of yours, sir," replied McGrane dubiously.

"Did you hear any of the talk that this gentleman says he overheard, Barney—Montresor's talk about getting me out of the way?" Joe asked.

"A little of it, sir, but no names was mentioned, and I didn't suspect that it was you they was puttin' up a job on," the coachman replied.

Joe muttered something in an undertone and began to move slowly in the direction in which Montresor had retreated. Erskine stepped quickly after him and laid a restraining hand on his arm.

"It will be better if you should give me your confidence, Mr. Warrington," Erskine said quietly.

Joe turned quickly. "No, confound you, I'll give no man my confidence—after what has happened to-night," he growled. "If what you and McGrane have said is true, I've got a bone to pick with Montresor, and the sooner I get to work the better."

"True," Erskine assented, "and if you can be made to understand that your interests and mine are one in this affair you will learn that you can work better with my aid than without it."

Warrington's hand fell heavily on Erskine's shoulder and shook it angrily.

"Come, now—speak out!" he exclaimed. "What kind of game is this you're playing? You say you have saved me from Montresor, and in return you

demand my confidence. Why? You appear to be an absolute stranger to me. What interest have you, then, in my affairs?"

"I am interested in your affairs only so far as they have to do with mine. Less than twelve hours ago I applied for a position in the service of the C., S. L. and W. I was told that my employment by the company was conditional upon my ability to recover the bonds which disappeared five days ago from the office of the company's treasurer. I have undertaken to restore these bonds to the place from which they were taken, and I will do so—with or without your aid."

"You have a line on them, I suppose," said Warrington sarcastically.

"If I had not a line on them, I should scarcely have appeared here so opportunely for you to-night," answered Erskine shortly. "If you want me to fight you, as well as Montresor, I'm ready to take on the game. If you will aid me in getting those bonds back to the vault in such a manner that no one will know how they got there, you will have everything to gain and nothing to lose."

"You mean that you will cause them to be returned by stealth!" exclaimed the astonished Warrington.

"Exactly!"

"But how?"

"That will be your affair."

"You mean that you will give the bonds to me?"

"Conditionally—yes."

"And what are the conditions?"

"There is only one. The bonds must be returned to the vault in my presence, and when this is done you must leave the place with me."

"After which you will report that you found me with the goods," Joe retorted skeptically.

"No. So long as the missing bonds are returned to the place from which they were taken, it matters not to me who was responsible for their disappearance. If they are not returned within thirty days, the exposure and punishment of the thief must follow."

"Am I to understand, then, that if the bonds are returned within thirty days, no effort will be made to expose or punish the man who took them from the vault?"

"Yes, you are to understand just that."

For a moment young Warrington was silent; then, in a voice that shook a little, he said:

"You have been assigned to this case by my father?"

"I have told you that I am working in the interest of your father—and yours. That is all that I can tell you now."

Again Warrington hesitated. "You have said that you have a line on the bonds," he returned. "Do you mean that you know in whose possession they are now?"

"Yes."

"You suspect that Montresor has them?"

"No. I know that they are not in the possession of Montresor," Erskine answered quietly.

"Not in the possession of Montresor!" exclaimed Warrington, with some sharpness.

"No. He parted with them to-day. A few days hence he will have them again, unless—"

"Unless—" put in Warrington, eagerly.

"Unless they fall into our hands," Erskine explained.

"And you think that—that you—" faltered young Warrington.

"I have told you that I would get them," Erskine answered firmly. "Am I to have you with me or against me?"

Joe hesitated for a moment, then he turned to the coachman, who, standing apart from the others was ignorant of the subject of their conversation.

"McGrane, you have said that my father discharged you from his service to-night," he said. "What was his reason for doing so?"

And now it was the coachman's turn to hesitate. "Because I disobeyed his orders," he replied.

"Was that disobedience in regard to any matter that had to do with me?"

"No, sir, but it had to do with Mr. Montresor."

"With Montresor?"

"Yes, sir—Mr. Montresor and Miss Warrington. Mr. Warrington told me to report to him whenever I drove Miss Warrington to houses at which I had reason to believe she met Mr. Montresor.

Miss Warrington told me not to do so. I did as she told me, sir, and so disobeyed Mr. Warrington. To-night he found me out, and then he fired me."

The words that fell from the lips of young Warrington were so low as to be unintelligible. For a moment no one spoke, then Joe said:

"It served you right, McGrane."

"I think it did, sir," replied the coachman penitently.

Speaking huskily, young Warrington addressed Erskine. "Does my father suspect that—that I—" he faltered, and stopped.

"He has not said so," the Altoona man replied.

"Do you think it would be better for me to go to him?" Joe asked.

"No. Under the circumstances, I think it would be better to give your confidence to me."

In the darkness Erskine felt a trembling hand close around his own. "You shall have it, then, but not here," he answered, in a low voice.

Erskine knew that his relation to the elder Warrington was suspected, but that what Joseph Warrington had to tell him was not for the ears of Barney McGrane. In the game that was to be played, however, the coachman must have a part, but he must be kept in ignorance of its full significance.

Erskine thought quickly. "I have a carriage waiting only a few steps from here," he said. "Follow me to it, but keep well behind me. What we do must

be done quickly. The trail is hot to-night, and by the time the sun is up two of us must be several hundred miles from here."

As he finished speaking, Erskine clambered to the top of the sea-wall. A moment later he had disappeared.

"Barney, did you ever meet that chap anywhere before to-night?" Joe asked as he and the coachman prepared to mount the wall.

"Never, sir, but there's something about him that makes me feel as how he's like to prove a good friend of you and Mr. Warrington."

"Did he see my father this evening?"

"Yes, sir, and Mr. Warrington told him to take Miss Warrington to the opera, but Miss Warrington got him into a carriage that was sent by Montresor, and a few minutes later Montresor laid that fellow out in Lincoln Park. That shows, I guess, that Montresor knows he's dangerous, and is afraid that he—"

With an exclamation of pain and amazement, the coachman started back, then, with a loud, hoarse cry of rage, he grappled with a dark body that had flung itself upon him in the darkness. A keen pain darted through his left shoulder, and a moment later his sinewy thumbs sank deep into the yielding flesh of a human throat. But it was not from that throat that issued the long-drawn shriek that reached the ears of Erskine and caused him to halt abruptly on the sidewalk on the other side of the Lake Shore Drive.

(To be continued.)

Silence isn't a sign of brains, but it's an aid to thinking.

—Chief Despatcher's Motto.

Sand is a fine thing, up hill or down. Keep plenty in your dome.

—Sermonettes by the Old Man.

An engine with a cracked bell may have sound cylinders. Some drawbacks don't matter.—Ruminations of the Roundhouse Foreman.



A Night in the R. P. O.

BY WILLARD D. EAKIN.

PERHAPS the most romantic, but, at the same time, the most difficult position on the cars behind the steam-horse is that of mail-clerk, especially if it be a cold, windy night, and the train is making up time. In this article the author has described just such a run on the "Linc and Bill R. P. O." It took half a dozen engineers to make the trip, but the mail-clerks had to stick it out. Talk of cold and hunger— Just light the pipe and hook onto this yarn.

What One Man Encountered Sticking Letters and Throwing Papers in a Fifteen Hours' Run on a Car with a Broken Coupling, Fourteen Hours Late.

IT is a long run from Lincoln to Billings, and we mail-weighers and the colored Pullman porters were the only ones who made it. It took five or six engineers to cover the trip, and there were three division points where the conductors and brakemen changed.

Edgemont, South Dakota, divided the "east end" from the "west end" of the "Linc and Bill R. P. O.," and here the weary mail-clerk who had been sticking letters and throwing papers throughout the fifteen hours' run from Lincoln gave over his responsibilities to a fresh clerk, who would carry the run on through to Billings.

But we weighers went on at two in the afternoon, in the yards at Lincoln, where the mail-car stood until train 43 took it out of town at six, and we were on duty during the thirty-four hours until we reached Billings at midnight, the second night out. That was when we

were scheduled to arrive, but we were often so late that our twenty-hour lay-over in Billings was greatly shortened. As one old weigher expressed it, we frequently "nearly met ourselves coming back."

Everything went wrong on this particular trip. In the first place, when we went to our car that day we found an old-timer with oil lamps and no steam from the engine taking the place of one of our modern cars which had been burned up in a recent wreck at Aurora.

We were in the habit of bringing along bacon and eggs or similar raw materials for our meals during the thirty-hour run, depending upon the little gas-stove, with which each modern car is equipped, to cook them.

Without the stove, the prospect was that we would have a serious famine before reaching Billings, for the most edible article in our grub-boxes was raw eggs. Then it was in February, and the prospect of keeping the atmosphere at

a comfortable temperature was not encouraging.

At Germantown, the first station out of Lincoln, the engineer started up too suddenly for the fourteen cars he was hauling and broke the front draw-bar of our car. Then they fastened us onto the rear end with a chain, and as 43 always ran local on the east end, we had an interesting though not pleasant series of sudden stops and starts.

Some Work to Cook.

That night we managed to boil some potatoes and eggs by hanging a bucket inside of the Baker heater, but in doing this we used up all of our kindling to make the fire hot enough, and during the night the fire went out while the clerk and I were working at the far end of the car.

At Grand Island, we laid over eight hours while the track was being cleared of a freight wreck, and the next day at three we plowed into a blizzard at Alliance, breakfastless, dinnerless, cold, and without kindling.

The clerk had been on duty for nearly forty-eight hours, having taken a friend's run for him, and as he had to double back at Edgemont with only an hour's lay over, he decided he could sleep if he couldn't eat, so he made up his cot on the rack and rolled in.

As the R. M. S. had lost its romance and become a sad reality, he viewed with no alarm the prospect of being discharged from the service, and, therefore, had no hesitation about allowing me to work the mail over his "slip," thus taking the responsibility of my errors.

As soon as he decided to sleep, I initiated myself as a mail-clerk, being glad of the opportunity to get the experience and hoping that having something to do would make me forget my hunger and the cold.

On the Job.

So while he snored away in his improvised berth on the paper rack, I worked the local from station to station, exchanged pouches, weighed them "on" and "off," and recording the results on my weight blanks. At Crawford I got a

jacketed "register," wrote it up in the book over the clerk's signature, and chucked it into the "Chey and Spoke" pouch.

The oil lamps had begun to play out, and by this time only one little flickering flame was left, at the upper left corner of the letter-case. By its light I got Crawford tied out with numb fingers. From the station-agent there, I got some oil to replenish my lights, but did not have time to fill the lamps.

Between Crawford and Edgemont there were two "catch stations," where the pouches were hooked in from a crane by the catching device in the mail-car door.

Such a station is not viewed with very much joy by a mail-clerk at any time, and they would be especially hard for me to make that night. We were fourteen cars away from the engine, and owing to the wind it was impossible to hear the whistles indicating our approach to the stations.

It was necessary, therefore, to keep a constant lookout for the lights. These could not be seen far through the stormy night, and I had to keep both side doors open and cross to each one every few minutes.

At Catch Stations.

The wind had been blowing in for some time. I happened across a package in the mails with one end open, and, strange to say, it contained a thermometer. I took this out and found that it registered four above zero.

I was soon chilled to the bone. The wind swept cinders and fine, hard snow through the big open doors.

I did not know which side the crane was on at Ardmore, the first of the catch stations, but, as I remembered that there was only a station-house and a water-tank in the town, both of them at a safe distance from the track, I tied one catcher in place before we reached the crane. While I was crossing the car to raise the other catcher arm, the pouch slammed into my trap, and Ardmore was off my mind.

But at Dewey, the other catch station, I couldn't do this. Only three days before I had seen a catcher arm straightened

back alongside the car from having hooked into the Dewey coal-shed.

That coal-shed was the bane of the mail-clerk's life on the "Linc and Bill." Setting so close to the track that the mail-car could not pass it with the catcher arm raised, and so near the crane that the arm had to be raised the moment the shed was passed, it made Dewey the hardest catch on the run.

I had to keep an almost constant lookout ahead for Dewey, as she would whiz past and disappear into the stormy darkness behind. It was an hour's run from Ardmore, I knew, by schedule, but against the storm we were not making anything like schedule time.

When I had waited an hour, during which time I took advantage of the opportunity to fix up my lights, I had no way of telling how much longer it would take to get there, so I stood in the door and strained my eyes for a yellow light, waist-high and close beside the track.

Thus another half hour passed by, but only some red and green switch-lights were seen. As I had never given any notice to these before, I was unable to identify them and so determine where we were. But as I knew that there would be no others within at least a mile or two of them, those of Dewey would not show up for a few minutes, and I left the door to consult the rear shack.

As I unbolted the front door of the car and opened it, a blinding swirl of snow and wind nearly carried me off the platform, as I stepped across the clear space that the chain allowed between the

two cars. I stepped over the iron gate into the vestibule of the Pullman and found the brakeman asleep in the smoking-room.

"Where are we?" I asked when I had succeeded in waking him.



THE ENGINEER STARTED UP TOO SUDDENLY.

"Well, now, how do you suppose I know," he said, "when I've been asleep for the last half-hour?"

I told him about the switch-lights, but he couldn't identify them from my description, so I clambered back into the mail-car and resumed my watch.

"WHERE ARE WE?" I ASKED, WHEN
I HAD SUCCEEDED IN WAKING HIM.



We were fourteen hours late, and running hard to make up time. If I leaned out and got my ear to the proper angle, there came now and then a feeble grunt from somewhere up ahead through the storm, seemingly miles away, which might or might not be the whistle of the engine.

Cold and Mighty Hungry.

That the engine was ahead was made clear by the fusillade of cinders that pelted me in the face. My eyes inflamed and smarted as if they were freezing with the lids held open. I could feel my limbs getting blue and stiff, and the flapping of the thin trousers against them in the wind made a friction which, I remember, seemed welcome for the warming sensation it gave.

Several times I felt that I had reached the limit of physical endurance, but I was determined to make that catch or freeze in the attempt, though I was so hungry that I wondered whether I would freeze or starve first.

This mental process was performed with a smile that seemed to crack my frost-stiffened face. But just when I had decided to give it up and close the doors, after taking a last hard look ahead, the light of the crane burst out of the storm fairly upon me. I had just time to raise the catcher when the pouch slammed into it.

My troubles were not over, but it was good to have the doors shut again, and, after running up and down the car to get warm, I clawed through the "local" for Edgemont, got her tied out, and awakened the clerk just as we were pulling in to that station.

Twenty-four hours without food or sleep, blue and chattering with the cold, I was pessimistic enough to predict that the "west-end" clerk, knowing nothing of our situation and counting on the regular steam-heated car, with its gas-stove, would have only potatoes, bacon, and eggs in his grub-box. My pessimism was proven, except that he had steak instead of the eggs.

But a ray of hope came to me when I heard the brakeman say, as he passed our door going up ahead, something about turning the mail-car.

They were going to turn us around and couple us up with the good draw-bar at the other end of the car, so as to dispense with the chain connection.

Hustling for Grub.

I reported the happy prospect to the clerk, asking the significant question, how long it would probably take to turn the car around, in the hope that he would make the prospect even more happy.

"Good idea," he said, "and if you're so all-fired hungry as you say you are, why not run up-town while they're turning the car—it'll take about a quarter of an hour—and get some eatable stuff at the bakery that won't have to be cooked? You're not supposed to leave the car, you know, but maybe I'll want a bite myself before we get in, and I'll not squeal on you."

As I was hungry to the most absolute degree, I fell for the proposition at once. I hurried up-town, bought the eatables, and charged back down to the depot, with a pie under each arm and a can of beans in my pocket.

But when I turned the corner at the station and began the final dash for the train, I saw that the track was empty.

About a half mile toward Billings were the rear lights of 43, getting dimmer every second. I was left. That was all.

Would the clerk weigh up the mail and sign in for me at Billings, and persuade the other clerk to sign me out and do my work on the return trip; or would I be found out for having left the car and discharged from the service? And would the penalty stop even there?

What was the law in such a case? Was it not a criminal offense to go off buying pies and neglect the care of Uncle Sam's mail.

But, as usually happens in such a case, I was perfectly calm, and resigned myself to fate. I couldn't help feeling that possibly I hadn't fully realized the seriousness of my situation.

Meanwhile, however, I would drop back up-town and have a good, hot supper and a comfortable bed for the night at the railroad hotel. I had gone half a block when a hopeful idea struck me. The

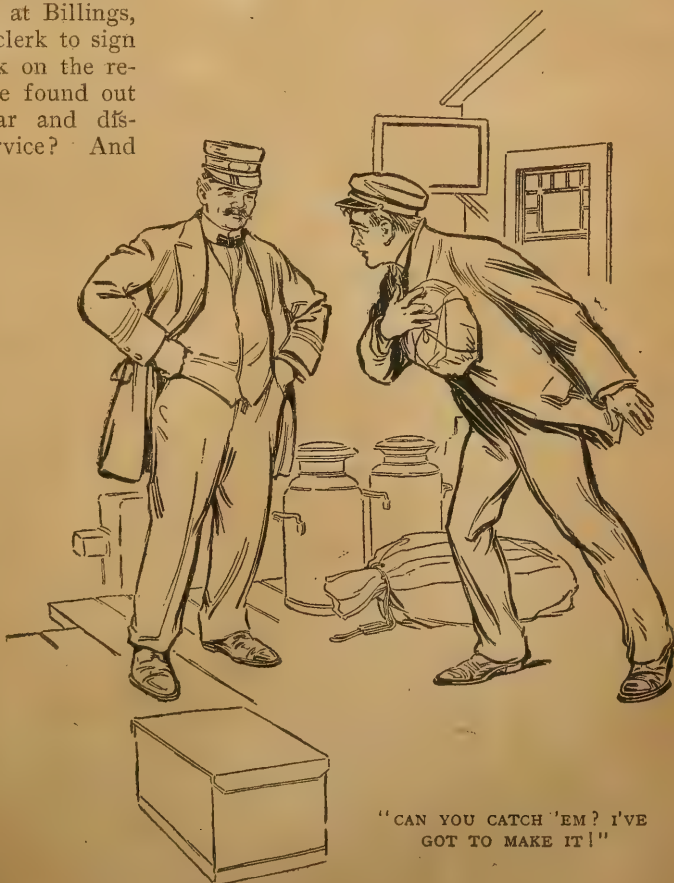
Deadwood and Edgemont train, known to mail-clerks as the "Dead and Edge," was on track No. 2, and they always waited for us before they left town, as they depended upon 43 for all their passengers and express, as well as all mail matter.

I looked back to the station just in time to see the truckman fling the last tie-sack of paper-mail into the compartment-car, and the engineer was climbing into the cab. Again I made a dash for the depot, retaining the pies and beans, and startled the con in the act of giving the highball.

"Did 43 turn his mail-car?" I gasped anxiously.

"Not yet," he replied; "they're going to turn her out at the 'Y.'"

"How far out is it?" I asked, while the engineer looked back for his signal to get out of town.



"CAN YOU CATCH 'EM? I'VE GOT TO MAKE IT!"

"Couple o' miles—out by the river."

"Can you catch 'em? I've got to make it," I told him, and quickly explained.

"Maybe," he said simply. "Get on, anyhow, and we'll try."

I'd have given that conductor a passport to heaven if I'd had it. I've often wondered whether he really went ahead and rode in the cab on my account, and if the suddenness with which that town vanished behind us was brought about for my sake, or if the fact that the train was twenty hours late had anything to do with it; but the surest thing about it was that we flew.

When we whizzed into sight of 43, they were throwing the mail-car in on the "Y." The tracks had separated some distance back, and were now more than half a mile apart.

The "Dead and Edge's" air went on, and in about two car lengths we slowed down so much that when I jumped I only made three revolutions on the sloping side of the embankment before I got up and started to run.

Then I did a Marathon in twenty-

yard time, crashing through the South Dakota corn-stalks like a deer.

Meanwhile the engine was running in on the "Y," coupling up with the car by the chain, running it back to the stem of the "Y," then out onto the main track and sticking it onto the rear end of the train with the good coupler.

I had come nearly half a mile, on a day-empty stomach, through a corn-field, and had nearly a quarter left to run.

The engine pulled away from the train, passed the switch, backed out onto the "Y" again, switched back, and was making the home-stretch to the head of the train as I reached the right-of-way fence.

I used the last of my strength to climb into the mail-car door, just as a whistling rush of air and a clank underneath the car told that the engine had coupled and the air was connected.

"Well! Great jimcracks, I didn't expect to see you again!" was the mail-clerk's greeting. "But I'm glad you came. Have you got the pies?"

I had. They were badly smashed, but welcome enough for all that.

IN A PULLMAN CAR.

THERE is one who will always remember me

Wherever the Fates may call her,
No matter how splendid her fortune may be

Or how heavy the ills that befall her.
I gazed on her first as we thundering sped—

I and the beautiful stranger—
With faith in the man at the throttle ahead,
And never a thought of danger.

I looked at her often and wished that we two

Might journey forever together,
With never a care when the heavens were blue

And blithe in the stormiest weather.
Her lashes were long, her expression was sweet,

She must have been twenty or nearly;
Though I know not her name, though we never may meet,

I know she remembers me clearly.

In fancy I see her still, slender and fair,

As she was in that long ago May-time,

When her dark lashes curled and the bronze of her hair

Turned dusk at the close of the day-time.

Oh, I dreamed of her grace as we thundered ahead

When troubles no longer beset me;
Her cheeks may be faded, her gladness be dead,

But I know she will never forget me.

I know that whatever her future may be,

Whether lofty or lowly her station,
She will never forget that occasion when we

Journeyed on to our far destination.
Though I never may clasp her in happy embrace

And never may tell her I love her,
She remembers, I know, for I stepped on her face,

When I crawled from my berth above her.

S. E. KISER, in "Book of the Royal Blue."

DONNELLY'S HUNCH.

BY ALFRED H. GIEBLER.

**Between Premonition and Prevarication, a Fireman
Manages To Get Just What He Is Looking for.**



ENGINE 808, pulling the division superintendent's special coach, "Magnolia," stood on the siding at Stoutland Junction. Engineer Tom Collins, who had brought her here, was stretched out in the office of the local doctor, a victim of acute indigestion.

At the station, Ed Francis, the conductor, stood over the telegraph operator.

"Tell the despatcher," he dictated, "that Collins is down and out, won't be able to finish the run. Tell him the Old Man is asleep in the car, and that if they'll let me pick up a fireman here and use Donnelly as engineer we'll get out in ten minutes and he'll never know it."

The operator with a nonchalant air of having division superintendents' specials tied up at his station every night in the week, worked away at his key a few minutes, then, after listening to the answering clicks, he turned to Francis.

"Nixey," he said, "DS says if the Old Man found out that Donnelly wasn't a regular engineer there'd be Sam Hill to pay; says for you to keep your shirt on a few minutes and he'll give you orders what to do."

"Well, any time to-night," growled Francis, "if the Old Man wakes, there'll—"

The operator held up his hand for silence.

"There's your dope now," he said, grabbing a pad of order paper. He wrote rapidly for a few seconds, then tore off one of the yellow sheets and handed it to Francis.

"For the love of Mike," Francis snorted, when he read the order, "this means a fifty-minute lay-over, and we've

been burning the wind to make time. What is the—"

"Oh, don't tell me your troubles," said the operator languidly. "I'm not responsible for the way this old turnpike is run."

Francis grinned at him, put the order in his cap and went out to the 808. Donnelly, the fireman, leaned out of the cab.

"What did they say, Ed?" he demanded eagerly, as Francis came up.

"They said for us to wait till 32 gets here and then to take Pete Horn off the 64 to finish Collins's run. I thought they'd let you take the run, Matt. What is it they've got against you?"

"Oh, it's because I come off the Jerkwater," said Donnelly, all the hope and eagerness gone out of his face.

"Well, you'd make as good a runner as they've got." Francis yawned and stretched his arms. "I didn't get much sleep last night," he continued, "I'm going in the office and pound my ear till 32 gets here. Sorry they wouldn't let you take the run, Matt."

"Oh, it's all right," said Donnelly lightly, "I'm used to gettin' the short end of it."

"It's a shame, anyhow," said Francis, as he turned away.

The St. L., M. and E. Railroad is almost a bee-line through Missouri till it strikes the Ozark foot-hills; there it makes a wide détour, skirts the mountains to the southwest, then swings back toward the Mississippi, while the D. and K., or the Jerkwater, that branches off at Stoutland Junction, dashes boldly up and over the rugged knobs, comes down their western slopes, cuts across lots, as it were, and intersects the St. L., M. and E. again at

Jacksonville, the southern terminus of both roads.

The D. and K. is not taken very seriously by its stronger rival. It is considered as a sort of burlesque railroad. Its engines are said to burn hay for fuel, and passengers on the one mixed train a day that puffs and jerks over its forty crooked miles are supposed to be able to alight at any point along the way to relieve the tedium of the journey by walking.

The Jerkwater had been a cradle of industry to Matt Donnelly. He had started as water-boy on a construction train, and then, after he had worked as wiper, hostler, fireman—mastered every branch of the service that leads to engine running, and was as good and safe an engineer as ever pulled a throttle—he had come down to the main line.

But according to main-line standards nothing good could come from the Jerkwater. He was not given an engine, but put to firing.

"It's all right," said Donnelly, "I'll get a chance some day to show them that I can handle an engine as well as the best of them, and they'll give me a run fast enough." He believed this, and he told it to Katie Mullins, and Katie believed it, and so they were married.

But Donnelly did not go up on the ladder. He was made a fireman when he came to the road, and a fireman he remained. Five years had passed, and there was a pathetic stoop to Katie's shoulders as she bent over the sewing she took in to make both ends meet in their growing family.

The lilting Irish songs were stilled on her lips, and Donnelly had almost given up hope, but to-night when Collins was stricken, he thought his chance had come.

He would take the special to the end of the run, and he would be so careful that the Old Man sleeping away in his palatial coach would not feel a single bump to his precious bones.

He would show them that he could run an engine as well as any man on the road, even if he did learn the trick on the hay-burners of the despised Jerkwater.

Then he would get his run at last, and Katie—ah, Katie, with her patient, wistful face and tender eyes—would be hap-

py again when they were living in the little cottage they had planned.

Thus he had dreamed, waiting for Francis to come back, and then his dream had been shattered. Tears of anger welled up in Donnelly's eyes. He had spoken lightly to Francis, spoken as though he did not care, but that was the Irish pride in him. He did care—he did care! Bitter disappointment and black rage filled his heart.

The waiting-room of the Stoutland station was only a few steps from where Donnelly sat in the cab of the 808 brooding over his wrongs. A child came to a window, saw the engine and disappeared, and in another moment was at the door dragging a woman by the hand.

"There's a train," said the child, "let's go to papa on that train."

The woman hurried to the engine.

"Where does this train go?" she asked, lifting a tear-stained face. "Does it go on the branch?"

"It doesn't go anywhere for a while, ma'am," answered Donnelly, "the engineer took sick and we're waitin' for another."

"I wanted to go to Cowan," said the woman. "I missed the train, and there won't be another till to-morrow."

"Y' couldn't ride on this train if it was goin' to Cowan," said Donnelly, "it's a superintendent's special."

"No, it'd be too tony for the likes of me," replied the woman, with a smile that was more of a ghastly grimace than anything else, as she turned away.

She was a poor bedraggled creature with all the marks of poverty stamped on her dress and features. There was something about her wobegone condition that touched Donnelly. It was the mute resignation of the poor—the philosophy that reasons that theirs is a misery that cannot be cured and must be endured. He called her back, intending to give her a word out of the abundance of his sympathy.

"Was it very important, what ye wanted to go to Cowan for?" he asked.

She turned on him fiercely.

"I'd give my soul to get there to-night. My husband's there, and he's dyin', he's askin' for me and I can't go to him."



"DON'T TELL ME YOUR TROUBLES,"
SAID THE OPERATOR.

"Maybe it's not that bad," said Donnelly kindly.

The woman looked up at him, a blaze in her eyes.

"He's dyin', I tell you, he's dyin'! I drove him away and now he'll die and never know I've forgiven him and wanted him back a thousand times."

The poor creature was half crazy with her grief.

"He's dyin', he's dyin'," she kept repeating the words, her wild eyes fastened on Donnelly's face. He was the only person that had spoken kindly to her that day. She appealed to him, lifting her hands pitifully. "Oh, why can't I go to him?"

Donnelly's heart was very soft. All his own troubles were forgotten in pity for the woman, but he could not stand the terrible look in her face.

He turned his head aside to escape her stare. He looked out of the cab window idly.

And then—Donnelly became a true

descendant of kings. He gave not a thought to himself, his immolation was completed. It was an Irish Don Quixote that climbed down from the cab.

"You wait here a minute," he said to the woman; then he ran to the rear of the special coach, climbed up on the platform, opened the door carefully and tiptoed along a narrow aisle to the smoking-room where the porter was having an audible dispute with Morpheus.

"That's good," said Donnelly, listening a moment, "it's a sign the Old Man is still snoozin'."

He ran back, led the woman and child to the front end of the coach and helped them up.

"Go in there," he said, opening the door and shoving them in. "Don't for the life of ye try to go in the other part of the car; just stay here till I come for ye. If a porter comes and asks ye what ye are doin', tell him ye are takin' a ride, and if he bothers ye, tell him Matthew Donnelly'll knock his head off!"

He was gone before the woman, bewildered by the turn events had taken, could say a word. He ran to the switch that led to the Jerkwater, swung the target around, then back to the 808.

"They can take their dirty job and keep it," he muttered to himself as he reached for the throttle. The engine began to move. It crept along the rails with care and caution like some great beast that was escaping from its master, the end of the main-line rails were reached, the ponderous drivers of the 808 gripped the lighter steel of the Jerkwater, and on they went, past the cluster of houses, past the coal-chutes.

Then Donnelly gave her more steam and they whipped around the curve and out of sight.

Conductor Francis found his couch—an unused corner of the telegraph table—an uncomfortable one, and he did not pound his ear more than twenty of the forty minutes of the wait till he rose.

He addressed a few uncomplimentary, and more or less profane remarks about the sleeping accommodations of the office to the operator, and getting only unintelligible grunts in response, went to the window to see how Donnelly and the 808 were getting along.

He looked out of the window once, rubbed a clear spot on the glass and looked again. Then he ran to the door and stared up the siding to the north and down the siding to the south. He called the operator, and, together, they looked up and down the track, and Francis even took a look up in the air. They returned to the office and spent a few seconds looking solemnly at each other.

The operator opened his key, and for the first time in the history of railroad-ing clicked the news that an engine and a special coach bearing the august person of the division superintendent had disappeared—had faded from the sight of man.

Of course everybody thought Donnelly was crazy, and no one thought of the Jerkwater. The despatcher asked a thousand questions, most of them unanswerable. He gave a thousand orders, most of them impossible of execution.

All stations on either side of Stoutland were notified to look out for the

runaways, for, as every one reasoned, there was no telling what direction a crazy fireman running amuck with an engine would take. The thing to do was to keep the track clear and avoid collision if possible.

The languid operator at Stoutland Junction was roused to quick action for once in his life.

Francis put in the time walking up and down the room, wording a letter of resignation he meant to write when he should feel a little calmer.

In the midst of things, the operator at Swinton, a station fifteen miles south of Stoutland, broke in on the wire, and a hundred miles of railroad held its breath and hung on every dot and dash of his message.

A farmer had telephoned that there was a wreck on a piece of the road that ran through his field.

Then consternation took a hand in the game. The despatcher ordered all the doctors in Swinton to go to the wreck, and two Italian laborers—one with bumps on his head and one who had lost a piece of skin the size of a dime—were hauled to Swinton in automobiles with ten surgeons attending them.

The wreck was that of a belated work-train that had run past orders to meet the special at Lomax, a blind siding a few miles out of Swinton.

Donnelly knew every foot, every curve and low joint on the D. and K. Its one train a day had long since made its round trip and he had a clear track. He whizzed the 808 through the little towns at a rate of speed hitherto unknown on the Jerkwater, and yet he was as careful as if Katie and Maggie and Malachi, the twins, and little Francis Xavier, who was but two months old, had been in the special car behind.

Most of the stations on the line were dark. At one place a belated agent came out on the platform and stood with bulging eyes at the unusual sight.

Cowan, the town the woman wanted to reach, was twenty-three miles from Stoutland Junction, and, in exactly thirty-seven minutes, which was not bad time, considering that Donnelly had to do his own firing, he slowed up at the deserted station. He stopped the engine and ran to the coach.

"Here ye are," he said, opening the door, "here's the end of yer journey."

The woman began tugging at the child that had gone to sleep on the floor. Donnelly picked up the youngster and followed the woman as she climbed down the steps of the car.

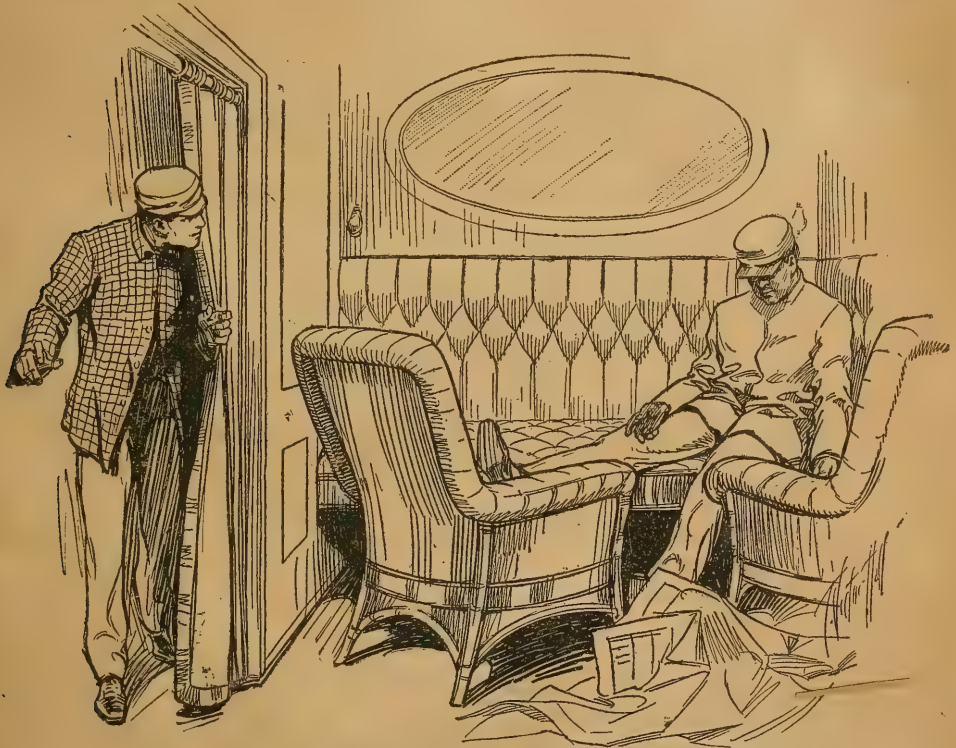
"Wake somebody up in one of them houses," he told her.

She tried to say something, she began sobbing hysterical thanks, but Donnelly

He gave three or four ear-splitting blasts of the whistle to announce their arrival, slipped quietly down from the cab and sought his boarding-house by the most unfrequented path he knew.

He was glad Katie was at the other end of the road, it would delay the telling of the bad news that he was out of work for a few hours.

He went to bed with a heavy heart. The first thing he did next morning



THE PORTER WAS HAVING AN AUDIBLE DISPUTE WITH MORPHEUS.

was in the cab before she had said half a dozen words.

"Good-by," he shouted, as the train moved away.

The rest of the run was made in forty-four minutes, and at 10.05 the 808 and the "Magnolia," with its calmly sleeping occupants, steamed into the Jerk-water yards at Jacksonville.

There was a switch connecting the two roads, and Donnelly might have delivered the special to the St. L., M. and E. station, but that would have entailed publicity, and that was something for which he was not looking.

was to pack his few belongings. Not considering his job worth resigning, he went to the office and demanded the money that was coming to him.

"Can't do anything for you," said the cashier, "got orders to send you over to the general offices as soon as you show up here. The Old Man wants to see you."

The Old Man was the last person in the world that Donnelly wanted to see, but there was no way out of it, he would have to go on the carpet before he was allowed to draw his money. In the elevator on his way to the Old Man's of-

fice he heard the first news of the wreck. Two men were talking.

"Everybody thought the fireman was crazy," one of them was saying, "but it looks as if there might have been some sort of method in his madness. A work-train ran past a meeting-point, and then went in the ditch on a spread rail near Swinton. If the fireman hadn't taken the special around on the Jerkwater they would have found the spread rail, or smashed into the work-train."

"Funny how things will happen," said the other man, "enough to make you believe in fate."

This news took Donnelly's breath away. He wanted to ask the men more about it, but their floor was reached before he could collect his scattered wits. He kept turning the words over in his mind as he went through the anteroom of the superintendent's office. The Old Man was sitting with his back to the door. He turned as Donnelly entered.

"Well, what's your trouble?" he snapped.

"Ye wanted to see me," said Matthew. "My name is Donnelly."

"So you're the man that took me for

an enforced ride over the Jerkwater, eh?" The Old Man adjusted the glasses to his near-sighted eyes and leaned forward to get a better look at him.

"Yes, sir," said Donnelly, because there was nothing else to be said.

The Old Man sat and stared at him, then he took his glasses off and polished them carefully, put them back on his nose and stared again. He had the reputation of being hard, and many a man had quailed under that glare, but not Donnelly, who was thinking of the words he had heard in the elevator; he wondered if the Old Man knew. His next words satisfied him on that point.

"Well, what have you got to say for yourself? What made you do such a crazy thing?"

"Ye wouldn't believe me if I told ye," said Donnelly, "ye'd think it was foolish."

"It was foolish," roared the Old Man, slapping the desk; "the biggest fool thing I ever heard of. But what have you got to say? Out with it?"

"I took ye over the Jerkwater to keep ye out of the wreck. If I'd told ye before there was goin' to be a wreck, ye'd



"YE COULD HARDLY CALL IT THAT. IT WAS MORE LIKE A HUNCH."

have laughed at me and said I was crazy."

Donnelly spoke with assurance. He looked the Old Man square in the eye with the perfect candor of a child.

"What wreck?" cried the Old Man.

"The wreck last night," said Donnelly, "the work-train that ran past its meeting-point."

"Wait a minute." The Old Man grabbed a sheaf of telegrams that lay on the desk. It often happens that a division superintendent is almost the last man to hear of an accident, the news being kept from him till the details are complete.

"This tells me," he said, shaking a paper at Donnelly till it made a crackling noise, "that work-train No. 40 ran by their meeting-point at Lomax and then went in the ditch at a point two miles north of there." Donnelly nodded his head. "I take it, then," resumed the Old Man, "that if you hadn't abducted me and gone over the Jerkwater, we would have either hit the work-train or found the spread rail ourselves."

"That's it, sir," said Donnelly.

The Old Man wiped his glasses again, blinking his eyes rapidly as he did so.

All the harshness was gone out of his voice when he spoke again.

"Do you mean to tell me that you knew this was going to happen, and that you took me around the Jerkwater to avoid it?"

"Yes, sir," said Donnelly, with becoming modesty, but gulping a little over the enormity of his prevarication.

The Old Man turned to his desk for a few seconds. When he turned to Donnelly again, he held out a paper:

"Take this to Effinger. It is an order to give you a regular run as engineer. A man that can take me over forty miles of the kind of track they've got on the Jerkwater and never wake me up, and can look far enough in the future to prevent wrecks, is too valuable for the service to lose."

"Thank ye, sir," said Donnelly, as he took the paper. He started to go, but the Old Man held up a hand.

"I want you to tell me something about this feeling you had. Was it a presentiment, a sort of premonition?"

Donnelly looked as wise as an owl.

"Well, no, sir," he said, rubbing the stubble on his chin, "ye could hardly call it that. It was more like a hunch."

FIGHTING FIRES ON THE PENNSY.

Employees Extinguished 321 Conflagrations During 1909, Saving the Company Thousands of Dollars.

THE annual report of the insurance department of the Pennsylvania Railroad shows that the company's own employees extinguished 321 fires during 1909. These fires occurred on property valued at more than \$9,000,000, yet the loss from them amounted to only about \$20,000.

The report derives added significance from the fact, says *The Railway and Engineering Review*, that during the past year additional equipment for extinguishing fires has been placed at available points. The road's own organization for fighting fires has been further developed by special training of employees, and additional locomotives in yard service have been equipped with special apparatus for use in case of fire.

A circular is to be issued by the insurance department giving the causes of all fires on the Pennsylvania system east and west of

Pittsburgh in 1909, in order that the employees may realize that their efforts to minimize losses from fire are appreciated, and further, that their attention may be called to the number of fires occurring from preventable causes.

During the year 1909, there were 929 fires on the entire system, involving a loss of only \$402,615, which was exceedingly small, comparatively, as the value of the property was more than \$260,000,000. Forty fires, entailing a loss of \$11,079, started on adjacent property. Spontaneous combustion was responsible for a loss of \$10,315, from 21 fires.

Two fires resulting from careless handling of lighted cigars, cigarettes, and matches, caused a loss of \$60,395. Nine fires were due to tramps, with a loss to the company of \$1,270, and 28 fires, with a loss of \$28,670, were of incendiary origin.

HELP FOR MEN WHO HELP THEMSELVES—NUMBER 30.

(The Rogers Group. No. 1.)

THE RAILROAD APPRENTICE.

BY ROBERT H. ROGERS.

THE editor of this magazine has received scores of communications from young men in all parts of the country, asking how they may become apprentices in the big railway shops, the conditions there, the pay, and similar questions. We are going to answer them in a series of five articles, which we have selected Mr. Robert H. Rogers to write, for the reason that Mr. Rogers has the twofold ability of being a railroad mechanic and a writer. This is the first article in the series.

We are publishing them in our popular department, "Help For Men Who Help Themselves," because there is no more appropriate place in the magazine. They will be distinguished as "The Rogers Group," however, and will run consecutively until completed. This series is no less valuable than it is interesting to the young railroad aspirant, the beginner in the workshop, the man who is on his first job firing; in fact, all men who are looking to the railroad for their future.

What Some of the Great Railway Systems Are Doing to Educate Young Men to Cope With the Improvements in Railway Construction.

EVERY feature in railroad service, animate or vice versa, has its development from a very small beginning. A pile of castings, billets, and boiler-plate results presently in a complete locomotive; and the awkward boy, whom you may notice in any shop, choking his hammer and pounding his hand oftener than the head of the chisel, may become the head of the motive-power department.

It is true that a long and rocky road must be traveled to reach this preferment; but, with very few exceptions, as an apprentice is where they all began, and from this humble capacity will continue to be recruited all the guiding hands and master minds of the future.

All of them, in the old days, chipped refractory castings full of burrs, swept the shop, and spent unavailing hours in the quest of impossible and preposterous tools. It was a hard school. A great

Series began in the August, 1907, Railroad Man's Magazine. Single copies, 10 cents.

many will bear witness to this, even if we have pulled out of the rut, but the game was worth the candle, and it may be encouraging for every beginner to know that the big job can be his, if he honestly gets into it and tries.

During one of the recent mechanical conventions in Atlantic City several well-known motive-power chiefs met for an informal lunch at the Marlborough-Blenheim, after a morning session wherein had been profoundly and resourcefully discussed the all-important matters of cut flanges, leaky boiler-tubes, high-speed steel, and automatic stokers.

Perhaps the close attention necessary to intelligently follow the learned papers which had been read resulted in these subjects being tabooed after adjournment, in favor of less exacting topics; but, as railroading must be talked by its incumbents of whatever grade, whether on the ash-pit at Jersey City, or in executive session in the Railway Exchange, it could not long be evaded in this instance.

The form assumed, however, was a genuine treat to the writer, who was the only auditor, and no less a rare occasion, because the superintendents of motive-power became reminiscent concerning their individual advent into the business, in which now, in their line, they stand at the head.

They are taciturn, too, these high officials. They possess to a transcendent degree this peculiar attribute of veteran engineers, and it is pretty hard to get them to comment on their early days.

Big Men Who Began Low Down.

It transpired that E. T. White, head of the eastern district of the Baltimore and Ohio, had been an apprentice and a wiper, in the historic old Piedmont shops, when Sam Houston held forth in that quarter as master mechanic, and to whom, with Andrew J. Cromwell, the B. and O. is indebted for the advanced mechanical ideas which, in the time of these men, placed it ahead of its contemporaries.

Mr. White had good schooling in the railroad game, but he was a good pupil, too. Through ability only, and without a single push behind him, he passed through all the grades leading to his present position. And the end is not yet.

Frank T. Hyndman, of the New York, New Haven and Hartford Railroad, was running an engine on the old Pittsburgh and Western, between that town and Chicago Junction, within the ken of the writer, who was roundhouse foreman at the Glenwood terminal, where Mr. Hyndman's engine put up.

A. Stewart, of the Southern Railway, swung a hammer for many years in the U. P. shops before he saw his way to the top.

All Were Poor Boys.

Many of the older employees of the Erie Railroad recall when T. Rumney, now general mechanical superintendent, had charge of the rod-gang in the Susquehanna shops of that road, and it hasn't been so long ago either.

He rose from machinist, no matter through what changes of management the road passed in the meantime. When a better job opened up in his particular field he was always the logical candidate for consideration, and always approved by his superiors, whoever they might be.

These men were poor boys—plain, every-day apprentices at the start. They had to work for a living, and they chose railroading. With possibly a single exception they did not have the benefit of college training, or even theoretical groundwork in their future duties, but what they have since acquired in that direction is astounding.

The effort on their part, which resulted in literally "picking up" advanced knowledge, in the face of the terrific pace set by their daily work, must have been tremendous. Yet they succeeded, and are to-day among the top-notch motive-power men of the country.

Whether based on fact or not, it has often been remarked that the brightest minds in railroading are to be found in the motive-power ranks; and it need not be wondered at, because interest naturally centers in the spectacular. Mammoth engines, a giddy race with time, shops replete with wonder-working machinery, terminal roundhouses, with all their picturesque detail of personnel and environment—these attract a young man.

The locomotives suggest their crews and all the stirring stories which have

been written about them, and which will continue to be written until the end of time.

The Trades Taught.

The shops appeal to the ingenuity and the mechanical instinct, maybe dormant, but nevertheless inherent in us all, and the smoky roundhouse interests through the concentration of energy and human resourcefulness, which the veriest tyro cannot but admit must be housed within its battered and windowless walls.

That the ambitious young man of today finds all this just as appealing, is shown by the fact that the Erie Railroad has on file some two thousand applications from young men who wish to enter as apprentices.

The Baltimore and Ohio can produce as many more, and the Pennsylvania double the number of either. These are applications for machinist, air-brake inspector (which is now taught as a separate trade), blacksmith, boiler-maker, tin-smith, pipe-fitter, electrician, car-builder, cabinet-maker, carpenter, pattern-maker, and molder, all of which are necessary in modern car and locomotive building and maintenance.

The majority of these applications are for machinist apprentice, in the proportion of at least four to one. This is undoubtedly the most comprehensive of all trades. From its ranks are recruited a larger number for supervising and official positions than any other.

It is, of course, impossible to provide for all of these applicants; but on the larger roads, at least, about five hundred boys take up the work annually, and of this number seventy-five per cent finish out their allotted time of three or four years, dependent on the requirements of the trade which they are to learn.

Future of 20,000 Youngsters.

What of the possibly twenty thousand young men who every year are given the chance to learn a trade? The carefully compiled statistics of the writer, extending over many years, indicate that one thousand will become sub-foremen, or, in other words, gang-bosses; two hundred and fifty will be foremen, and seventy-five general foremen.

Fifty of these general foremen will become master mechanics, and five of the latter will be heads of that department, mechanical superintendents, or superintendents of motive-power, call it what you will.

This may seem a bit discouraging to the aspirant for honors in this attractive field, but remember always that deadwood is inimical to and inseparable from all callings. There is naturally a weeding-out process in the evolution of a future superintendent of a department so vital, and those who fall by the wayside can generally, and without a strained retrospect, unearth the true cause of their undoing.

Without a reference to the pluck of those who years ago learned the business, it would be unfair to comment on the tremendous advantages possessed by an apprentice of these days.

No more striking contrast could possibly be imagined than between these favored individuals and those who served their time in the so-called "good old days." When these two contrasts are laid side by side, it seems really astonishing that every beginner of the nineteenth century is not head of his chosen profession at first hand.

The "Good Old Days."

To learn the machinist's trade twenty, or twenty-five years ago, meant a degree of hardship inconceivable almost in this age of progress. The general plan of training, say up to 1890, was to start the apprentices in the roundhouse for a year, and to regard them merely as extra pairs of arms and legs to do the bidding of anybody connected with the "knock-about" gang.

This gang, composed of a boss, two machinists, two helpers, and one or two of the green boys, contended with all the hard work of removing and applying driving-wheel tires, dropping wheels in the pit for new boxes, and changing springs, all of which, with the crude appliances then in use, were very laborious operations.

It should be added that a roundhouse in which this work is done is rather a disenchanting proposition to a novice at all times and on all occasions. In summer

the thermometer frequently climbs around 130 degrees, and the boss would generally find a place to put the new boy where he would have no difficulty in appreciating the temperature.

He would, no doubt, think of happy school-days and the cool quiet of his country home, while lying over the high boiler of a "hog," with all the lagging burned from under the jacket; and lagging, in those days, was simply boards. He would be trying to pack one of those throttle-valves arranged on top, the skin peeling off his fingers from contact with the network of red-hot pipe, and half strangled by the smoke from his open kerosene torch.

Some "Fancy" Jobs.

There were other jobs, too, which even the writer cannot recall without a tremor. Many who read this have not forgotten the problem of the disconnected throttle, which rigging always came apart at a point under the shell of the boiler, about six feet in the rear of the dome.

There were a good many things in those boilers—stays, crown-bars, and what not; and after the dome-cover was off and the throttle-box removed, it became the time-honored job of the thinnest and smallest apprentice to be lowered by his feet, head first down the dome, and make his way over the crown bars to the seat of the trouble.

It was no trouble to replace the pin, the loss of which meant the disconnected throttle; but it was an awful job to worm one's way back again to where welcome hands would seize his feet and haul him out.

It is remembered in this connection that Joe Brady, once an apprentice with the writer, but now probably general foreman of the B. and O., at the Riverside roundhouse in Baltimore, became stuck in the boiler of the 806, on his return trip following this feat.

They claim that if a man loses his nerve he swells when in such environment, but it is nevertheless a fact that they thought the boiler would have to be cut apart before Joe was finally released.

Winter in these old roundhouses was not much of an improvement. They were ramshackle affairs at the best, all of them.

The doors didn't fit. There was always a gap under them of from one-half to three inches, and it required all the waste bagging which we could beg or steal from the oil-house to stop the crevices.

There wasn't a whole pane of glass anywhere. How the wind did whoop it up when the wind was blowing right. Then the boys would put in many hours in the cold and damp pits under the engines, chipping away the ice so that the bolts could be uncovered to loosen the nuts.

The drop-pits on which this work was done were not the quick-action affairs of the present, operated by an hydraulic or air jack with a minimum of labor, but, on the contrary, they were extremely primitive.

The entire machinery for lowering the table on which the pair of driving-wheels rested while being dropped consisted of a jack-screw in each corner, turned by a wheel taken from the brake-staff of a freight-car.

Of course every new apprentice was assigned to the unenviable job of operating one of these wheels. Unenviable is without reservation, because there are tricks in all trades. The older hands on the other three wheels had the art of running their own down in unison finely developed, leaving the apprentice to lower practically all of the weight, to the accompaniment of blistered hands and a lame back.

Hunting "John Murphy."

There was another feature, too, that was "raw," and so "raw" that its memory lingers through all of these many years.

That was the innocent, but none the less disheartening, "kidding" to which every new boy became the logical victim.

He was sent off in a hurry, and always on a long journey, for some impossible tool. For instance, a machinist in the "knockabout" gang would opportunely discover that the progress of the work at hand must be held up until he could secure the loan of a "half-round square," this impossible tool being the property of a certain "John Murphy."

"John Murphy" was always farthest from the gang which the limits of the shop would permit, if, indeed, he were

not equally as mythical as the tool itself. The apprentice would be instructed to borrow this appliance from Mr. Murphy, and not return without it.

Fertility of invention worthy of a better cause was displayed by the mechanics of those days in creating these errands. The boys were hustled after "straight hooks," "left-hand monkey-wrenches," "whistle-tuners," and "smooth files."

They carried bogus orders to the store-keeper for "white lamp-black," and to the blacksmith to temper a "lead-center punch," carefully filed into a semblance of the steel article.

Sent for "Blast."

There is, indeed, an instance on record where an apprentice spent his entire dinner-hour in begging the foreman of the iron-foundry for a bucket of "blast." He was anxious to please the machinist for whom he was working, and that worthy had informed him that a great favor would be conferred if he could possibly beg or borrow a bucket of "blast."

This is a part of what happened to the big boys who went to learn a trade in those "good old days," because there was an infallible precedent to sort the newcomers in two classes, big and little.

The big ones had their initiation in the roundhouse, while their smaller brothers were assigned to the machine-shop, until they grew up strong enough to stand the roundhouse and its vicissitudes.

It cannot be said that they fared any better either. The machine-shops of those days wouldn't bear much comparison with what you may now see at Reading or Hornell. There were no gear-tables on the lathes; and if you wanted to chase an eight or a twelve thread you had to cover the whole machine-shop floor with figures, and many of these figures had as little bearing on the matter at hand as the "whistle-tuner" on the device to which it refers.

This first year of apprenticeship was the real test of a boy's staying qualities. If he survived it there was good stuff in him; the remaining three years didn't go so hard. He received his reward in the shape of a "bounty," now a thing of the past, and a clearance into the full-fledged machinists' ranks.

The "bounty" was a great institution, and it is a pity that it has passed away. It meant that from each and every day's pay eight cents would be deducted by the company, to be paid in a lump at the expiration of the apprenticeship.

This amount, usually \$100, was a pretty good stake for a boy getting "free." Of course, there were certain tithes on this amount, but enough remained to buy a good kit of machinists' tools, and more cash at one time besides than the boy ever saw.

After they were "out of their time," and received their "bounty," they generally drifted away from the home fold to secure experience. Boys who started as apprentices long ago gave value received for the trade they learned. It was simply a case of the survival of the fittest straight through, and represents the school in which those whose names are mentioned at the beginning of this article acquired their knowledge.

The trade had to be picked up largely from the mechanics in the shop where the boy worked, and the result was almost entirely dependent on the desire of these mechanics to impart information. There was little disposition on the part of the shop supervisors to teach any apprentice. The foreman thought his duty done when he placed the boy as helper with a good mechanic, or in a position where he might pick up what was to be learned.

Seeking Information.

The old apprenticeship system was wofully weak in this particular feature, because it lacked the spirit of cooperation. Before the advent of the shop instructor—who is now paid to instil the ideas and best procedure in the mind of the apprentice through practical demonstration—the apprentice, when placed on a machine, asked a mechanic how to do a certain job.

He had to ask him, as there was no other way. The mechanic would say: "You will have to learn that the same way that I did." If the boy went to the foreman for information, he would usually find him so loaded with other duties that he would not have any time to devote to apprentice education.

The result was that the machine did not turn out the work, and unless the ap-

prentice proved to be an unusually good "sticker" he became disgusted with his trade.

So much for what used to be; but what a revelation for some of those old foremen if they could walk through one of the perfectly appointed apprentice schools of the present day!

The Difference To-Day.

They would see classes presided over by competent and well-paid instructors; drawing-rooms, with all implements furnished free of cost to the apprentices. In the shops it would be noted that the boys work on a defined schedule; that they are changed from machine to machine, or from operation to operation at stated times, and not allowed to remain two years on a bolt lathe.

The slow boy is shifted in the regular routine, so that the quicker boy who is to follow him may have the full time allowed upon the machine. A slow boy, who does not show decided improvement after three or six days of instruction, is taken off the machine and put on special work for which he is better suited.

He is told that the company cannot afford to reduce the output of that machine.

Some boys learn quickly, and others slowly. The quick boy often makes mistakes, while the slow ones, when the idea is grasped, seldom forget it. For this reason every effort is made to study the dull boy and bring him up to the standard before removing him from a machine.

Improving the Shops.

In order to meet the demands made on their shops, many railroad companies, within the past four or five years, have practically renewed all shop machinery. Additions to shops, power-houses, round-houses, and roundhouse machine-shops have been built to keep in good condition the motive power and car equipment. To derive the greatest possible benefit from this investment, it is certain that the companies must have trained, skilled, and careful workmen.

In keeping with this advanced movement the Erie Railroad has created an organization for the purpose of giving

technical and practical instruction to young men who enter its service as apprentices. It has established apprentice schools at Meadville, Pennsylvania; Hornell, New York; Susquehanna, Pennsylvania, and Dunmore, Pennsylvania.

These schools are free to apprentices in all departments, and attendance is compulsory. Instruction in the classes covers the fundamental rules of arithmetic, common and decimal fractions, proportion, simple problems in interest, tables and weights, the elementary principles of plane and solid geometry, mechanical drawing, practical and theoretical mechanics, and instructions pertaining to the construction of cars and locomotives, as well as lessons in their successful and economical operation.

Apprentices seeking employment in the shops of the Erie (and the same requirements apply practically to the other roads maintaining these schools) must not be less than sixteen, nor more than twenty-one years old, and have good general health.

Making Application.

Preference is always given to the sons of employees. All applications for apprenticeship are made to the master mechanic, or officer in charge of the shop, and the applicants are sent directly to the instructor of apprentices, who examines them as to their general education.

If he finds that they are qualified for the position sought, he so certifies to the proper officer, and the applicant enters the service.

The rules and regulations of this and other companies are based on a specified course of four years as the maximum time to be served. Time lost by apprentices is not allowed, but each apprentice must put in three hundred days, or the number of hours a day which the shop works, before he is entitled to advancement to another year.

Those who complete the course, as indicated by the award of a certificate of apprenticeship, are given machinists' rates in the shop in which they are employed, the rate being based upon ability and merit.

Apprentices in this department are given a general knowledge of the differ-

ent classes of work within a specified time of three years, as indicated in the following schedule:

MACHINE-SHOP.		Months.
Lathes (bolt-lathe first, then general work)	6	
Planers	3	
Shaper	3	
Slotter	2	
Boring-mill	2	
Vise work on rods.....	3	
Vise work on motion work, pistons, cross-heads, etc.....	4	
ERECTING-SHOP.		
Frame work, shoes and wedges, wheeling engines, putting up spring-rigging, engine-truck work, expansion-gear, etc.	6	
Work above running-board, consisting of hand-rails, pops, whistles, boiler mountings, and all similar work	3	
Putting up motion work, setting valves, lining guides, putting in pistons, applying steam-chests, etc.....	4	
Total	3 years.	

The fourth and last year is spent, when possible, on work with which the apprentice is least familiar.

Not Included.

The tool-room and air-brake departments are now no longer included in the course given above for the machinist apprentice, but are treated specially, and a number of apprentices are kept in these departments, with the understanding that they are to become specialists in this particular work. And no more important item exists in modern locomotive practise than the air-brake..

The tool-room and air-brake departments in the large shops of the Erie are of sufficient size and capacity to profitably employ, at all times, from four to eight apprentices, and these positions are filled by capable young men. Apprentices in these departments are given a three-year course, as follows:

TOOL-ROOM.		Months.
Handing out tools.....	2	
Operating tool and drill grinders.....	2	
Shaper	2	
Milling-machine	3	
Lathe	4	
Vise work on die-sinking, making and general repairs to such tools as are		

	Months.
used on the various classes of work in the different departments of the shop	5

AIR-BRAKE ROOM.	
Overhauling and applying brake-rigging	3
Air-pumps	4
Lubricators, engineers' valves, injectors, etc.	4
Reducing-valves, cut-out cocks, steam and air gages, globe-valves, water-glass, and steam-gage cocks, pops and whistles, and all work handled in this department.....	7
Total	3 years.

For the Boiler-Maker.

The course for the boiler-maker apprentice in these shops is no less comprehensive. It is a four-year course, three years of which to be spent on the following schedule:

BOILER-SHOP.		Months.
Heating rivets, and helping at light work on punch and shear, scaling boilers, etc.	4	
Ash-pan and netting work, also as much miscellaneous sheet-iron work as possible	6	
New fire-box work, reaming, and tapping stay-bolt holes, running in, setting and cutting off stay-bolts, etc. .	4	
Helping to scarf, roll, fit, shear, apply rivets, and calk new fire-box or new sheets	6	
Setting flues	3	
Helping on flange-fire	3	
Working with boiler-maker on general work, such as flanging, riveting, applying new sheets, bracing and stay-bolt work	10	
Total	3 years.	

The fourth year of this apprenticeship will be spent principally in the back-shop on patches, half-side sheets, door sheets, back-and-front flue sheets, smoke-box extensions, liners in smoke-box, and general work in this department.

One apprentice will be selected from those in the fourth year of their time at this trade for instruction in laying out work from drawings. He will work with and under the instruction of the man in charge of the laying-out table.

The term of service in this work will be at least six months. At the end of three months another apprentice will be

assigned to laying out, so that when the first apprentice retires the second will be able to take a third, and so on.

The Erie Railroad Company announces, in connection with its apprentice schools, that the movement has for its primary object, not the making of mechanical engineers out of shop workmen, but the making of first-class skilled mechanics, so that the shop forces may be sure of men trained and educated in Erie standards and Erie methods.

Those who prophesied a few years ago that the new apprentice system which was being established on the New York Central lines would deteriorate and die a natural death as soon as the first excitement passed off, must be glad to learn that they were badly mistaken.

After three years those who have followed its progress closely are convinced of the principles on which it is established.

The New York Central has now ten schools in connection with its shops—at Beech Grove, Indiana; Collinwood, Ohio; Depew, New York; East Buffalo, New York; Elkhart, Indiana; Jackson, Michigan; McKees Rocks, Pennsylvania; Oswego, New York; St. Thomas, Ontario, and West Albany, New York. The last report indicates a total of 564 apprentices enrolled. The Union Pacific and the Santa Fe have also fallen in line, and are organizing apprentice instruction schools in their various shops.

What Apprentices Have Done.

The wonderful susceptibility to mechanical development induced by this systematic course of training is well illustrated by the following instances, taken at random from some of the shops of the New York Central lines:

In the West Albany shops a first-year apprentice, with only two-weeks' experience, bored twelve eccentrics in thirteen hours, and five eccentric straps in seven and one-half hours.

A second-year apprentice, with helper, set the valves on an engine in seven hours. He also set valves on two other engines in good time. A second-year apprentice, with helper, lined up two sets of guides and coupled pistons, all in six hours.

This boy had only three months' experi-

ence in this work. A third-year apprentice, in charge of the rod job, repaired thirty-two main rods, ten pairs of front-end brasses, and eighteen pairs of back-end brasses. He also made two sets of front-end brasses. All of this work was done in three weeks.

At the Oswego shops an apprentice, with but three-months' experience with a helper, ran the link job successfully during the temporary absence of the regular foreman. At the Elkhart shops a third-year apprentice laid out a new drop-pit jack for the roundhouse from a blueprint.

In the Drafting-Room.

At the McKees Rocks shops two fourth-year apprentices had full charge of a pit, with an engine for general repairs. The boys ordered all parts, made sketches for new bolts, lined up the guides, laid off the shoes and wedges, wheeled and trammed the engine and set the valves.

A fourth-year apprentice took complete charge of erecting a new engine, including the following jobs: leveling and squaring the frames, scribing and chipping the saddle, laying off the shoes and wedges, and wheeling and trammings the engine.

In connection with this mechanical training, boys are used in the drafting-room both before and after graduation. Before graduation those best fitted for the work spend three months making blueprints, drawings, and tracings. After graduation those specially adapted may be used as regular draftsmen.

When rushed, the head draftsman often takes drawings to the apprentice classroom to be worked up or traced. Apprentices assist the drafting-room in making numerous tests, such as indicating engines, dynamometer car tests, coal tests, etc.

Debating clubs give the boys an opportunity to write and talk on mechanical subjects. Speaking in public makes and develops initiative, and the ability to do this is due to classroom instruction. Club socials and picnics bind the boys to their fellow workmen and build up valuable friendships. The boys learn to understand and respect their superiors, but not to fear them.

The cause of this striking movement in the interests of advanced education, briefly summarized, is due to the tremendous strides in the development of the locomotive in the last twenty-five years, and to little else.

A Perplexing Problem.

In 1876 the standard passenger-engine in use throughout the country had cylinders sixteen inches in diameter and twenty-four inches stroke of piston, a toy compared with the present passenger-engine of the Atchison, Topeka and Santa Fe—the 1300—which would pull ten such engines as those of the centennial year, and their trains also.

The early locomotive builders had this advantage: The established gage of track—4 feet 8½ inches—was larger than their ideas. While their ideas progressed slowly, the extension of railroads proceeded tremendously, until 100,000 miles of track was laid in this country—and all at that gage of 4 feet 8½ inches. Not until this mileage was down did the fact dawn that the locomotive was outgrowing a gage now too late to change.

It is certain that this will remain the standard width of track for all time to come, as it is certain that no more than fifteen feet will remain the limit of over-head clearance.

During the past thirty years the weight of the locomotive has increased on this 4-feet-8½-inch gage from less than 40 tons to upward of 100 tons. Engines have become higher and wider, until the

limit has been reached in both directions, and the only thing which can be done now is to improve the efficiency of the machine within the present limitations.

To cope with these requirements, perplexing problems are presented, and before they can be successfully combated each and every man in the mechanical department must be specially trained to an appreciation of the difficulties.

This explains largely why we have apprentice schools. They were not needed in the old days, because the track was bigger than the engine, but now the locomotive dwarfs the track, and all that can be done is to enhance its power within itself.

Thinkers Are Wanted.

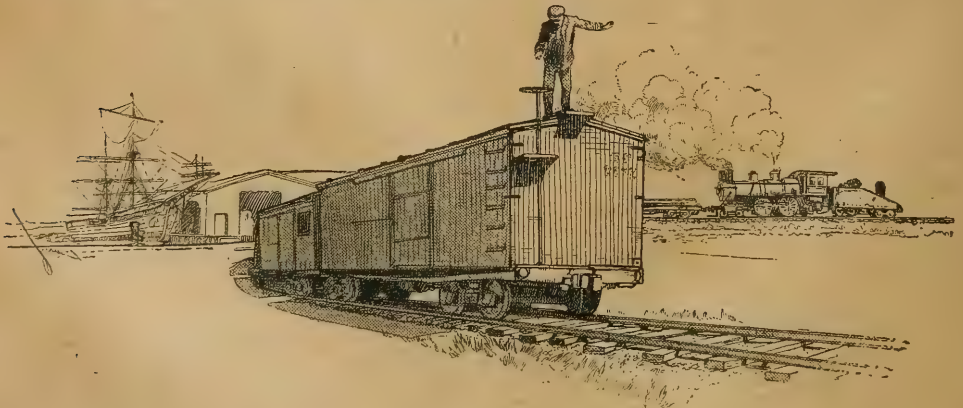
This is why the railroads want their boys to think, and they are willing to spend any amount of money to encourage them, because the greenest among them all may stumble on something which might mean a revolution.

They pay their apprentices well, too, when compared to the old days. The writer put in his apprenticeship at seventy cents a day for the first year, with ten cents a day added for each succeeding year.

It is not unusual for to receive now eighty cents the first year, \$1 the second, \$1.25 the third, and \$1.50 the last year.

This may be an unwritten chapter in railroading, but it is true in illustrating the effort which all roads are making to develop men.

In the next article in this series, which will appear in our May issue, Mr. Rogers will describe the occupation of a railroad machinist.



THE GREATER LOVE.

BY BENJAMIN RUSH THORNBURY.

Sam Selkirk Proves that the Victory of Love Is as Great as that of War.



HE gaunt frame building that had served as division headquarters at Centerpoint for the past quarter of a century, trembled and creaked in the grasp of the blizzard. Everybody down in the yard, who could leave his work, had been driven to the shelter of roundhouse and train-shed by the fury of its blinding gusts.

Even the snorting little switch-engine, that had just finished making up an extra, crawled under the leeward side of the coal-chutes to keep itself warm. The big ten-wheeler that had backed down and coupled onto the long line of empties was panting a protest at being dragged out on such a night, its breath freezing upon its black sides as it fell.

A shaft of light shot across the yard as an upper door opened and closed, and the form of a man came out upon the landing and staggered down the creaking steps that flanked that side of the gaunt building.

It moved slowly across the half dozen tracks and disappeared through the open door of a box car that stood in the outgoing train.

A lamp waved a signal from the caboose and was answered by two short blasts from the engine, and with a clanking of draw-bars that sounded sharp above the storm, the extra pulled slowly down the yard.

"It never snows, but there's a blizzard out here," grumbled the night despatcher, bending over the train-sheet at the long instrument table in the center of the room, "and that applies to something more than the weather chart, too." Just let us get a heavy run of stock, and the Old Man's

sure to find some reason for running that varnished wagon of his out on the line to play shuttle-cock with the schedule. It's a bad night to keep things moving."

He was addressing no one in particular, but the superintendent wheeled around from his desk in the corner and faced him.

"Speaking of the Old Man," he said, "did you notice that drunken bum that just went out?"

"No," he snapped, "I've been too busy keeping half a dozen hog-trains from running over the Old Man's special to notice anything. What's he got to do with the Old Man?"

"Nothing, now, but there was a time about ten years ago, when the Old Man was a strong factor in his life." The superintendent hitched his chair over to the table and cocked up his heels.

"Just a moment. I'll get this extra out of town and then eat my lunch while you talk," interrupted the other.

"It isn't a long story," began the superintendent as he lighted a cigar and carefully studied the burning end. "That drunken bum is Sam Selkirk, at one time the smoothest operator on the M. I. and N. Copper-plate copy and all that, and his Morse came so clean that even Fatty Dalton out at Elba would not break him, and that's saying a lot, for Fatty was the worst ham on the division.

That was before the consolidation and just after they brought Mr. Goodell down here from the Soo to be general manager. The road never saw such times as that, before nor since; for he was the best all-around operating manager they ever had.

"Well, Sam blowed into the general

offices one day, they were located at Kensington then, and hit the Old Man for a job. I guess no one ever knew where he came from, as that was before the days of the pedigree system, and a man got a job for what he *could* do and not what he *had* done.

"Beyond the fact that he could pound brass, the Old Man never asked any questions. I was a clerk in the office at the time, and I remember the expression on the Old Man's face when Sam sat down to that key. He did love a competent man, no matter what branch of the service he happened to be in.

"You can bet there wasn't any bulled messages in that office after that, and things went on as smooth as the road-bed for about six months, until one day Joe Kelseo came in on No. 2 and announced that he needed a despatcher, and needed him bad.

"You never knew Joe, did you? Well, he was the littlest man with the biggest heart you will find anywhere; and when it came to getting trains over this hundred and forty-four miles of steel and cotton-wood, his peer wasn't born. He went down East when the road was gobbled up, but he was train-master here in Centerpoint at that time.

"The Old Man knew, by the way Joe cut his eyes around at Selkirk when he made the announcement, that he might as well look out for a new operator, for what Joe went after he usually got, and so the next day Sam was ordered to report here for second trick work. That was the beginning of Sam's troubles."

The superintendent paused to relight his cigar while the night despatcher marked up an "os" on No. 3 on the train-sheet and said "gn" to the operator.

"Of course there was a girl in the case," continued his chief, "and the girl in Sam's case was Jim O'Keefe's daughter. Jim was road-master; the Old Man having brought him and the chief despatcher down with him from the Soo. We had no superintendent here in those days, that work being divided between the chief despatcher and the train-master.

"The chief was a good man, all right, or the Old Man wouldn't have had him, and we all thought he was straight as a die, but a lot of straight trees have

crooked roots you know, and they never showed in his make-up until Sam raked off some of the dirt by taking up with Fanny O'Keefe.

"Somehow, Fanny never told Sam that she and the chief had been thick up north. From that moment, the chief began throwing it into Sam and never let up until he finally got his scalp.

"Things went on that way until Sam and Fanny concluded to tie up. She was buying her wedding things, and Sam went around with the glad hand out to everybody. The boys used to say that even his "OK" sounded like a 'God bless you,' and many a lonesome lad up on the west got an hour off when Sam knew he ought to have been doing his work.

"He paid no attention to the malice of the chief, and took a good deal off him for the sake of peace. He always did his work, and everybody liked him, from the Old Man down.

"About that time the Transcontinental bought up the line and there was a general shake-up all around. The general offices at Kensington were abolished, and the road made a part of the St. Joe branch of the Continental. They wanted the Old Man to go down there as general superintendent, but he was too good a man to sub to any of those Wall Street importations, and as good as told them so. Besides, he was tired of the game anyway, so he resigned and moved over into Illinois and went into the real estate business.

"I never did know just how it happened, for I was in St. Joe at the time, having been moved down there along with the other office fixtures, but it seems that the chief had some kind of a pull with the powers-that-be that we didn't know anything about, and the first thing I knew, he was carded up as superintendent of the division.

"Just one week from that day Sam was fired for cause. Of course it was plain to everybody that the cause was under the new superintendent's hat, but you don't need a Gatling gun to kill a mosquito, and Sam wasn't much more than that in the Transcontinental eye.

"He came down in a day or two to get his time, and I never saw such a change in a fellow. I started to open the subject of his trouble, but he shut up like

a clam; didn't have a word to say against anybody, only that he guessed he would go out West and grow up with the country.

"That was the last I saw of him until he drifted in here to-night on this blizzard, and I never learned the whole story until the chief was raised from superintendent to general manager of Western lines and I came up here to take his place."

"Our general manager?" exploded the night despatcher.

"Our general manager," pursued the superintendent. "It seems that whatever the charge was, he queered Sam with the girl as well as the company, and in six months married her himself, and I guess it was that, more than the loss of his job, that put Sam all to the bad, and he must have gone to the bottom, for I didn't know him to-night until he told me who he was."

"He wanted me to place him, but I couldn't do anything for him, for the Old Man had seen to it that he is on the black book of every general manager in the country, and it would have been worth as much as my head; I have a wife and two little ones that must come first."

"I offered to stake him though, but he straightened up in a semblance of that old imperious way of his and said he wasn't looking for charity, he wanted a job. I told him then that the Old Man was coming through to-night and that if he would wait, I would see if something couldn't be done in the matter. He turned on his heel and went out. I never saw murder in a man's eye, but—"

"DS, DS, DS—BR."

"The night despatcher opened the key to answer the call, and the superintendent went quietly back to his desk in the corner. He was about to ask how the special was coming on, when he heard a sharp exclamation behind him and turned to see the night despatcher standing rigid in front of his key; his face was as white as chalk."

"Great Scott, man! I've put second 97 head-on into that special!"

"What do you mean?" gasped the superintendent, springing to his side. "Speak, man! For heaven's sake say something!"

The night despatcher had fallen limp in his chair, and the haggard face he raised to his chief was like death. He pointed silently to the open order-book.

ORDER No. 127.

C. & E. Spl. West, Glendale Jct.
C. & E. Second Ninety-seven, Bradford.
Special west Eng. 1091 and Second
Section Train No. 97, Eng. 4250, will
meet at Deanley. J. W. B.
OK. Un. 11.48 P.M.
OK. Br.

"I got that train of empties over to the junction for them and then gave them that meeting-point with second 97. They left there ten minutes ago and Bradford just said 97 had run his signal board and had gone over the hill. His light was out."

He was speaking calmly now, but his slow, deliberate sentences came with a metallic ring.

"That means," he continued, "that in about twenty minutes from now that train load of hogs will be going down Deanley hill at a forty-mile clip, and about five minutes later she will land on that special, and—"

"And no night man at Deanley!" The superintendent groaned.

"Yes," affirmed the other, "Price goes home after No. 11 passes. And the Old Man's wife and daughter with him too. What's that!" he leaned toward the sounder, which was clicking rapidly.

"What is it?" asked the superintendent.

"Wait!" The word cracked like a pistol-shot, then he began translating slowly:

"Don't worry up there DS, I'm not the operator here, but I got that report BR. just sent and have put a glim on the bulls-eye; it'll stop the one that gets here first and—"

The circuit went wide open and did not close again, leaving the two staring at each other in helpless amazement.

"Sounds like a message from heaven," said the night despatcher in a whisper.

Extra east pulled up at Deanley tank and the fireman crawled over the ice-covered tender to let down the spout. A brakeman jumped down from the caboose steps, pulled his cap over his ears and started toward the engine.

"Tell Dave to get a move on there, we don't want to lay out that special," called the conductor from the cupola.

He delivered his message and was returning when he saw a tattered shoe protruding from the door of a box car.

"Here. This ain't no Pullman Limited. Clear out o' here!" he called roughly, and giving the foot a jerk, the form of a man struck the frozen ground and lay in a heap. The brakeman swung to the steps of the passing caboose, and the tail-lights glimmered around the curve.

The man rose to his feet and steadied himself with an effort, then staggered across the snow-covered platform to the door of the station. It swung open against his weight and he fell prone across the floor of the little waiting-room. A ruddy glow from the smoldering fire came through the open door of the stove and petted the white upturned face with little caressing touches of color.

For half an hour he lay thus, with no sign of life save the quick rise and fall of the stiffened coat at his chest, when on the other side of the lattice partition an instrument began pounding rapidly.

The man stirred uneasily and raised himself upon his elbow, his eyes fixed in a glassy stare. He was listening intently. Suddenly he struggled to his feet and stood with fists tightly clenched. His face was the face of a demon.

"At last," he sobbed. "At last! Hang

him! Hang him! And he'll die like the dog that he is! If she was only there too—she—she! Oh, my Fanny!"

A mighty passion shook him, then slowly, as the light breaking through a storm-cloud, his features relaxed and the fire illumined a transformed face.

Like a madman he flung himself against the frail door and burst into the office. Tearing open cupboard and locker, he at last found the lantern and hugged it to him with a little inarticulate cry. In another instant he was at the stove again, wrenching off the globe as he ran.

Insensible to the pain, he grasped a blazing coal and held it to the wick. It flickered and went out. He flung it back and picked another, and was successful.

He replaced the globe with shaking hands and darted outside to the platform, where he hooked the lantern to the signal-board. Stumbling, he groped his way back to the office and sank into the chair at the instrument-table.

Outside, above the howl of the increasing storm, a locomotive uttered a single shriek, which was echoed by another far up the track, and a moment later the two panting engines came to a shuddering stop with their frosty noses almost touching. A glimmer of ruby light fell softly upon them from the swinging lantern.

Inside, they found the corpse of a man, his stark fingers clutching the key of a telegraph instrument.

FATAL COURTESY.

A GUILELESS rustic, wishing to be employed on a railway, emerged from the examination-room and informed his father he had failed because he was color-blind.

"But you can't have!" said his father. "You're no more color-blind than I am."

"I know that, feyther," he replied, "but it's all through bein' polite."

"What do you mean? Explain yourself."

"Well, feyther, I went into a room, and a chap held something up for me to look at. 'This is green, isn't it?' ses he. 'Come, now, you're positive it's green?' quite pleading like; and, though I could see plain enough that it wor red, I couldn't find it in my heart to tell him so. 'So I agreed with him, and they bundled me out. No more perliteness for me. It don't pay!'—*Pe arson's (London) Weekly.*

JUST A HABIT.

A NUMBER of railway men were once discussing the question of accidents.

"The roads in Scotland," said one official, "used to have a bad name, indeed, in respect to accidents. No one thought of embarking on a railway journey unless he had provided himself with an accident policy."

"The famous Dr. Norman MacLeod was once about to set off on a long journey through the Scotch country. Just as the train was pulling out the clergyman's servant put his head through the window and asked:

"'Ha'e ye ta'en an insurance ticket, sir?'"

"'I have,' replied the doctor."

"'Then,' continued the servant, 'write ye'er name on it and gi'e to me. They ha'e an awfu' habit of robbin' the corpses on this line.'—*New York Times.*


Letters of an Old Railroad Man and His Son.

BY HERMAN DA COSTA.

No. 5.—THE SCHEME OF A REAL WINNER.

Breezy Secured a Job as Office-Boy and, Although He Incurred the Everlasting Enmity of the C. C., He Learned Something New About Railroading.

JIM TO THE OLD MAN.

EAR DAD: Of late, I've been having a pretty hard time of it at the office. I was pretty well discouraged. The reason I got discouraged was on account of a little trouble I had with T. F.

Martin, T. F.'s secretary, had been homesick right along, and I've done all of Martin's work. Of course, Mr. Connelly did some of it too, but when the fruit season opened, Connelly had his hands full attending to his own work, so that I had to do all of the work by myself.

One day a rush wire came in asking what should be done with a train of peaches that was to be delivered us from the S. G. and Q., at Fredericksburg, that afternoon.

I'd been watching the fruit movements for some time; and as that was a part of Martin's work, and Connelly and T. F. were very busy, I wired our people to re-ice the cars at Fredericksburg, and hold them for regular movement the next day.

Late that afternoon, T. F. was out talking with Connelly, and I heard Connelly tell him that there had been no fruit-train that day. After T. F. left, I went over to Connelly and told him that there

had been a fruit-train, and I'd told them to hold it for regular movement the next day.

Connelly went up in the air about it. It seems that they had intended this train to be delivered in New York the following morning, and were going to put on extra engines and give it the right of way in order to get a big piece of traffic from the south.

When T. F. came out, of course, he had to be told what had happened. Then the general traffic manager came in, and he had to be told; and then, as if to add insult to injury, the third vice-president strolled in, and the whole blame thing was gone over again.

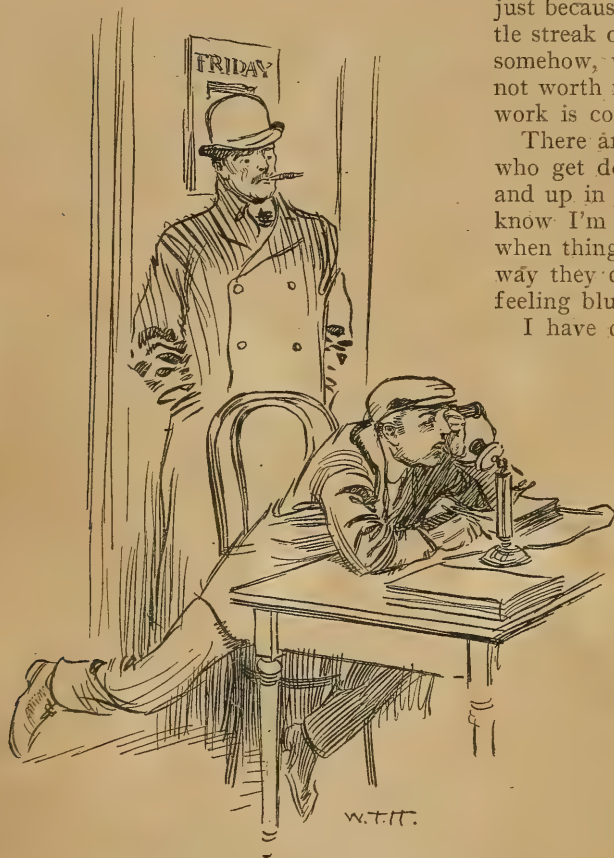
You have been telling me a lot, dad, about how T. F. can cuss. I know, all right, now. If there wasn't a cuss word that he didn't know, it was because he'd never heard it. I expected every minute that I'd lose my head. I would have, too, if it hadn't been for the S. G. and Q. offering to let us use their engine to haul it through; and, by some good luck, we happened to have a pilot down there who took the engine over the road.

That was mistake No. 1. About two days after I was fixing up a lot of passes, and, in going out to lunch, left two books, which had been countersigned by Connelly, lying on my desk. When I came

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back they had gone. I didn't think anything of it until five o'clock, when I couldn't find them any more, and then I told Connelly about it.

Coming so soon after the other trouble, it made things look pretty badly. The worst of it was that we hadn't taken a record of the book numbers, and so couldn't tell which books were missing in order to take them up when presented.



BREEZY HEARD SOME ONE ENTER THE OFFICE.

He passed it up, however, although he was supposed to report it to F. F.

The next day I made a mistake of twelve hours in reporting that 97, the fast freight, had run late on a trip, and it wasn't until after a hot letter had been written to the general superintendent about it that we found out it was a mistake.

Of course, it was too late to stop it; and I had the pleasure of being hand-

ed a letter the next day, by Connelly, in which the general superintendent, through his C. C., politely and gently informed us that we were drunk.

Then, for a couple of days, little things happened. They just seemed to flow along as if they had determined to flood me under. I got so that I was afraid to shake hands with anybody for fear they would drop dead.

I felt as if everybody had it in for me just because I happened to run into a little streak of bad luck for one day. And, somehow, when I get in that shape, I'm not worth my bread and butter, so far as work is concerned.

There are lots of people in this world who get down in the mouth one minute and up in the clouds the next. But you know I'm not one of that class. Still, when things begin coming at all like the way they did recently, I just can't help feeling blue.

I have often thought it really doesn't amount to anything, for in two weeks' time I would forget all about it and perk right up again; but I get in the dumps once in a while, and when I do, I stick.

I'm not going to make you blue, however. I'll get over it, I guess, in time.

Martin is still sick, and I'm still with the railroad. Nothing much on hand now. They're ordering a lot of new cars, and, though times look hard, nobody seems particularly worried.

Can't you get mother to take her picture, and send it to me? Get yours taken with her, so I can put it up on the mantel in my room. Give Miss Pesnelle my love,

and ask mother to write soon. Affectionately,
JIM.

THE OLD MAN TO JIM.

DEAR JIM: Before you start reading this letter, pick a nice easy chair, with a good light over your shoulder.

You said, in your last letter, that you got discouraged with your work. I want

to tell you about a young friend of mine who used to work in the superintendent's office on the New York division twenty years ago. The boys called him Breezy. He was, too. He was as breezy a sight as ever blew down the pike.

One day the superintendent was sitting in the inner office when he felt somebody was standing before him, and looked up. It was a boy about nineteen, with hair like red ink and a face full of freckles. "What is it?" asked the superintendent.

"How are you?" asked the boy in a kindly voice, holding out his hand.

The superintendent shook it.

"I came after a job," explained the boy confidentially.

"What job?"

"Office-boy."

After talking to the boy a while, the superintendent called in his chief clerk, Swidges, and told him to give Breezy a job as office-boy. Nothing was heard of him for about four months; then one day Breezy was in the office by himself when the telephone-bell rang. He hustled over to it.

"This the B. and D.?" he heard.

"Yes, sir. Who's this?"

"Adams & Co. We've five cars of chicks for Chicago. Can you take 'em?"

Breezy whistled. The C. C. wasn't down, but he had accidentally heard once that the company had been trying to get Adams & Co.'s business for a long while. He did some quick thinking.

"Well?" came impatiently over the wire.

"Give me your number; I'll let you know in ten minutes." Then he called up the freight-house.

"Anybody down there?"

"No one but the watchmen and two day men, sir."

Breezy scratched his head. "Hold the day men. This is the superintendent's office. There will be five cars of chicks out to-day from Adams & Co., for Chicago. Get the empties from the yard and put them alongside the freight-platform. Hustle!"

"Exchange, give me D.—O.?" he asked. "This the train-master's office?"

"Yes; who's this?"

"The superintendent, Mr. Darrell." His voice grew gruff. "There'll be five

cars of chicks to go on 97. Hold 97 one hour if necessary, then switch the cars out with her."

"Hold 97! Why, Mr. Darrell—"

So the bluff worked! Danny's throat almost burst in his endeavor to speak more gruffly. "I said hold 97 one hour. Isn't that plain enough?"

"All right, sir." D. O. rang off, grumbling.

Then Breezy did some more quick thinking. The crack fast freight of the B. and D. R. R.—No. 97—was due to leave at 4.30 P.M. It was now 3.30. Thirty minutes to load and send the chicks down to the station, one hour to load them in the car; that made 97 thirty minutes late!

Just then the phone rang. Breezy jumped for it. "Well?"

"Superintendent's office?"

"Yes, sir; what is it?"

"Those five cars of chicks—"

"Well?"

"We can't get any empties. No engine to switch a car." It was the freight-house.

Breezy groaned, then had an inspiration.

"All right, I'll attend to that. Telephone me when the cars reach the platform and when they're loaded." Then he rang off, and called again: "D. O., please." Then, after a little wait: "Hullo, D. O.?"

"Yes, sir."

"This is Mr. Darrell. Run a switch-engine out, quick, to the east yard, to take five empties to the west-bound platform. Telephone me when it leaves. And do it quick!" Breezy's voice was commandingly deep.

"All right, sir."

Then he called up Adams & Co. "Are those chickens loaded?"

"Yes, all ready."

"Send 'em down, then; we'll take 'em on 97."

The man at the other end was silent for a moment. "Who's this?" he asked. Breezy modestly gave his name. "We won't forget you," assured the other. Breezy thanked him, then rang off.

D. O. rang up. "No engine in service but 97," they reported.

"Take that," he ordered desperately. Then he sat down and drew a deep

breath. He was in, all the way over, and he might as well see it through.

In three minutes the bell rang again.

"Those chicks just arrived," reported the freight-house. "Two men on the wagon are helping us load them."

"How long will it take?"

"About an hour, sir."

"All right. I'll give you thirty minutes. The engine will be there then."

"We'll try. It's pretty quick work, though."

The next thirty minutes Breezy lived in suspense, and when the telephone-bell rang he almost jumped for it. "Yes?" he asked eagerly.

"Ninety-seven is just leaving," he heard. "They've got the chicks."

Breezy heard some one enter the office and stop behind him, but resisted the desire to turn.

"You did very well," he gruffly spoke. "Thank you." The other fellow rang off, and Breezy turned to the newcomer. It was the chief clerk.

"Who was it?" asked Swidges.

Breezy explained matters to him. The C. C. went up in the air. He was a hard man, and had never forgiven Breezy for going over his head to get a job. He finished by telling Breezy he would report the whole thing to the superintendent, Mr. Darrell. The next morning the superintendent came out of his office to the C. C.'s desk, and Breezy prepared for a storm.

"That was pretty good work of yours yesterday, Swidges," he said.

The C. C. glanced up. "What's that?"

"Those chickens on 97, yesterday," answered the superintendent.

Breezy's heart jumped. Now for the storm!

"Oh, yes," answered the C. C. carelessly. "I had to figure pretty closely on it, too."

"The traffic department called me up yesterday evening, and told me about it," explained the superintendent. "They say it'll give us a big lot of trade in the commission field. You did splendidly." He walked in his office again.

Then Breezy understood that the C. C. hadn't told him the truth, but he made up his mind to keep quiet. Just because he did, Swidges disliked him all the more.

It was hard for Breezy to keep still, however. One day he suggested to Swidges that, by a change of stenographers on different desks, they could save the salary of an extra man. The C. C. told him angrily that he wasn't put there to make suggestions; the next time he did it, he would be fired.

Then a long report was made to the president, the general manager, and the general superintendent of the delays to trains on all divisions. Breezy saw where the reports could be cut out and a daily morning report made which would not only be up to the minute, but only take a few minutes to make.

He told the train-report man about it, who told the C. C., generously giving Breezy the credit. The change was made, but the C. C. called Breezy up and told him that after this he either had to attend altogether to his own work, or quit.

That kind of thing would have discouraged anybody with feelings, but Breezy apparently didn't have 'em.

The temptation to have a hand in running the road was irresistible. One dinner hour, when the freight-office called up to get the routing of a car, and everybody was at lunch, Breezy, who had been shown how to get routes by the routing clerk, after hunting diligently, gave the necessary instructions.

Three days later the traffic department called up the superintendent's office. The chief clerk answered the phone, and, after quite a lengthy conversation, went in the superintendent's office.

Then he came out again, called the routing clerk, and retired with him to the sanctuary again. By this time the office was listening wide-eared. Breezy was wondering what it was all about, when the echoes of a heated argument came through the door of the superintendent's office, followed by the routing clerk, flushed with anger.

The train-report man, who was an old friend of his, stopped him as he passed. "What is it?" he asked.

The routing clerk was still angry. "That fool Swidges," he loudly declared. "He wants to tell me I sent a trial shipment out of route. Green & Co. gave us a trial shipment for C. V. delivery, and told us to hold for special instructions. Now, Swidges wants to tell me that I



"THIS BOY HAS DONE MORE
TO DESTROY OBEDIENCE THAN
ANY MAN WE'VE EVER HAD."

sent it without instructions, and we're going to lose all their competitive business."

Breezy suddenly remembered the car he had routed a few days before. He was up in a second, and hustled inside the superintendent's office.

The C. C. was just getting up to come out. The superintendent was facing the door. "Mr. Swidges," said Breezy, "I did that."

"Did what?"

"Routed that car, B. and D., and C. V."

"You!" exploded the chief clerk.

Breezy nodded. "Everybody was out of the office," he explained, "and the freight-house—"

"I don't want your excuses!" The C. C.'s voice shook with anger. He grasped Breezy's arm. "Mr. Darrell, this boy has done more to destroy obedience in this office than any man we've

ever had—up here. I think it's time to let him out."

Breezy pulled his arm away and his face flushed, but he did not answer. The superintendent looked gravely at him for a moment. Then he spoke.

"Who told you to route the car that way?" he asked.

"No one was in here at lunch-time but myself," he explained, "and the freight-house called up and said 97 was made up with this car, and they wanted a routing, as she would leave in ten minutes, and I told them to send it via Cumberland Valley."

The superintendent looked at the chief clerk. He shook his head. "The traffic department are in the air about it," he said. "It's not his fault, in a way, but—" The telephone rang, and he broke off.

"Yes, yes; this is Mr. Darrell," they heard.

"Mr. Green? Oh, yes; Green & Co."

That was the firm that had shipped the car. What was coming now, Breezy wondered.

"We are very sorry, Mr. Green—what?—delivered? No, I didn't know that. They called me up. All right. Thank you, sir." He hung up the receiver.

"That was Dan Green," he said to Swidges. Then he motioned to Breezy to leave the room.

When the chief clerk came out from the inner office he said nothing to Breezy or the routing clerk, who was still smoldering at his desk. He began dictating, and Breezy got up and went to his desk. "Say, Mr. Swidges—"

"Go to your work," said the chief clerk harshly.

The next day Breezy heard the full story. The shipping man of Green & Co. had called up the traffic department to give them instructions for routing, and when he was told that the car had been shipped by another route he immediately notified the traffic department that it would mean the loss of their entire competitive business, whereupon the traffic department had called up the chief clerk and notified him to that effect.

Almost at the same time, Green & Co. had received notice of the delivery of the car to the C. V., and the time, three days, was so startling that the head of the firm had called up the superintendent and traffic department, and, after congratulating them, promised them all their business.

While the results were good, the increased dislike of the chief clerk rendered Breezy's position almost unbearable, and he was more uncomfortable because the routing clerk wouldn't let him come near the routing desk again. It drove him to spend much of his time in the yards, where he got a lot of valuable experience that he would never have learned in the office.

The peach season came on. For ten years the P. F. R. R. had cornered all the peach movement from the South, though their service was generally poor, their facilities rotten, and they steadily refused to improve them.

The Southern peaches amounted, in season, to as high as fifty cars a day, and the revenue was a nice little sum; but,

somehow, nobody had been able to get it away from the P. F. R. R.

This year, however, the B. and D. got after the business. The result of the traffic department's work was a request on the general superintendent to run a daily train of two cars of peaches over the B. and D. There wasn't any profit running two cars special, particularly to New York markets, to which point there was always a heavy run of traffic—unless the traffic department could guarantee that the amount would increase.

The traffic department very politely declined to guarantee anything more than two cars. Finally the papers drifted down to the New York superintendent for schedule over his division; and he, after talking it over with his men, declined to offer anything but movement on the regular local, when connection could be made.

Naturally, the question was talked about a good deal; and Breezy, out of curiosity, got the papers and looked them over. They contained a lengthy statement of existing conditions, written by the traffic department, and also a schedule of Southern connections given by the commercial agent at Atlanta.

Breezy, after reading the correspondence over, decided that his road was being robbed of traffic that rightly belonged to it. That made him mad, and gave him an idea.

He went out on an unofficial inspection of the P. F. R. R. Then he saw his friend the train-report man, and got him to make up a schedule of special movement over the New York division.

As the peaches were delivered at Washington, practically the entire movement lay with the New York division, except for forty miles; and, remembering what the commercial agent at Atlanta had said, Breezy showed his friend that the peaches could leave Anacostia Junction, just outside of Washington, and where they were delivered, on 94, in time to connect with a special, and make early morning delivery in New York—something the P. F. R. R. had not done for six years, and meaning practically forty-eight hours from the South to New York.

Then the B. and D. had a big pier, practically unused. The P. F.'s pier was too small to accommodate all the traffic. Breezy explained that he had seen

that himself, and had heard the buyers complaining about it. Another advantage was that the B. and D. pier was near the commission district; well lighted, and with first-class accommodations for the produce trade. Wouldn't his friend help? He had an idea.

His friend, the train-report man, became enthusiastic when he heard the great idea; and helped him to make up not

from the grinning buyer a promise that if he got other names to the paper in his pocket, he would give in his signature. The next day he went to see another man. When Breezy told him his name, the man thought a moment, then said:

"Didn't you take some chickens for us to Chicago some time ago? I'm Mr. Adams."

"Yes, sir."



"I WON'T TELL YOU WHAT I THINK OF YOU."

only a statement of existing conditions, but also a statement of guaranteed forty-eight-hour movement from the South to New York City on the part of the B. and D.

With the caution to him not to tell any one, Breezy slipped out. He went to the auction sales, and followed the largest buyers and commission people to their stores. Then one day he came down to work dressed in his best suit. During the lunch-hour he disappeared, as usual, and went to one of the men he had tracked down.

He talked with him earnestly, convincingly, and forcibly; and after a forty-five-minute conversation, extracted

"Well, we owe you something for that. What can I do for you?"

Breezy explained his plan. The man asked him question after question; and when Breezy produced the schedule that his friend the train-report man had prepared, Mr. Adams promptly signed his name.

Bidding Breezy wait, he dictated a letter, which he handed to Breezy, telling him to give it to the first man he had seen. That gentleman, after reading the letter, looked over Breezy curiously, and, after talking to him a little while, added his name.

When Breezy showed the train-report man those two names, that gentleman

gasped. The great idea was making a hit at last!

The next day Breezy got two of the largest commission men, who signed when they saw the names he had secured.

Then, the following day, he got two more names—both of them first telephoning Adams & Co.—and the great work was done. They were the controlling members of the Produce Exchange, and with them for a lead, every small buyer would follow.

Breezy determined to make it sure, however, and on the sixth day he landed the president of the Produce Exchange.

He returned to the office fifteen minutes late. The C. C. called him over. "This makes the fifth time you've been late this week. You can go."

Breezy looked puzzled. "Go! Go where?" he asked.

"Go anywhere! You're fired."

Breezy looked at him in amazement. "But, Mr. Swidges—"

"I don't want any excuses! Get out!" interrupted the C. C., and, turning to his stenographer, began dictating.

Breezy stared at him, still dazed. "Mr. Swidges, I've got the names here—"

The C. C. looked up. "Haven't you gone yet? Do you want to be put out?"

Then rage suddenly entered Breezy's heart. "I won't tell you what I think of you!" he exclaimed; and ere the surprised C. C. could gather his wits, Breezy seized his hat and departed hastily.

He walked home with his head up. Discouraged? Not he; he was just mad—mad clear through. After all he had done—Then the dust bothered his eyes, and he rubbed it out hastily.

Then he took his case in his own hands. The next day he called on the general superintendent.

"I want to show you a paper in my possession," he said.

"Sorry to hear you were fired," said the G. S.

"So am I," replied Breezy, smiling.

"Let's see your paper?" Breezy produced it. The G. S. looked at it. His eyes opened wide. He handed it to Darrell. "We've been trying for ten years to get that traffic, and this boy stepped in and got it in five days."

The superintendent read the names

signed to it. Then he whistled. "By George!" he cried. "Why didn't I think of this before?"

"Why didn't any of us think of it before?" said the G. S. "No, the boy has got sound common sense." Then his voice sharpened. "Mr. Darrell, explain to your chief clerk what you want him for."

The superintendent turned to the C. C., who was already shrinking.

"How many passes have you sold since you have been with us, Swidges?" he asked suddenly.

The C. C. turned as white as a sheet. He tried to speak, but couldn't. The superintendent produced a paper from his pocket.

"We've found two hundred here, so far. Maybe you can add to the list." He turned to the G. S. "By the way," he said, "do you remember that Adams & Co. gave us all their business on account of some chicks we moved for them some time ago?"

"Well, they telephoned me this morning that this boy was the one that arranged the movement for them."

He indicated Breezy with a wave of his hand.

"Yes," answered the G. S., "I know that, and a lot more." He turned to Breezy. "How old are you, Danny?" he asked.

"Twenty, sir."

The G. S. thought for a moment. "I'm going to take this boy, Darrell," he said. Then he turned to the C. C.—but the C. C. had disappeared.

The superintendent glanced inquiringly at his chief. "Let him go," said Thomas. "Maybe the poor fellow—" Then he stopped, and spoke to Breezy again. "I want you to report at my office to-morrow, Danny."

Do you know where Danny is to-day? He's third vice-president of the B. and O., and I guess you see him almost every day. If he'd allowed himself to be discouraged, where would he have landed? It's the fellow who climbs over the rocks in the road that gets where he's going, and not the man who sits down and weeps when he runs into anything that looks a little hard.

Affectionately, FATHER.

(To be continued.)

THE LOST HORSE, LIMITED.

BY J. R. STAFFORD.

Old Purdue Drove Crippled 96 to Her Destination After a Braver Man Had Jumped.

FOUR drowsy engine crews, cursing at the unexpected summons of the caller, lounged sleepily in the despatcher's office at Craggs. It was a little after midnight. The air was pungent with the smell of burning pine, and the men coughed as the bitter smoke bit their lungs. Behind the eight men there skulked a great hulking fellow whom none of the rest seemed to notice.

Suddenly the despatcher and the superintendent of the division to the East burst into the room. The two eyed the enginemen a moment, and then the despatcher said:

"Men, I have called you all, for I want a crew to volunteer to take a fast engine and two cars up to the Lost Horse Mine. One car will be loaded with Italian miners, the other will carry tools and dynamite. I will not order any crew to go, nor any man. The for-



"IF HE'LL GIVE ME STEAM,
I'LL HANDLE HER."

est along the whole sixteen miles is on fire and burning close to the tracks. The snow-sheds along the slope may be burning now. It is a dangerous trip!"

He paused, and there were sleepy curses in comment. He eyed them again, and again spoke slowly:

"I ask for these volunteers because there was a cave-in at the Lost Horse Mine an hour ago, and the whole night-shift is entombed! The day-shift is demoralized, and the dynamite that should have been put off at the siding there last night is in the yards here! Without it, the work of rescue cannot be done! They are perhaps only dagoes—but they are men. Now, who will go?"

Gallipel, the oldest of the engineers, lifted his voice:

"And you want some of us fellers to go up there and git blowed up in the snow-sheds, eh? Well, I won't go."

Certain of his position with the superintendent, Gallipel stumbled out. His fireman followed him. Jones, the next oldest and trusted engineer, stepped forward:

"I'd do it in a minute, sir, but you know my wife's an invalid and there is all-my kids."

"I wouldn't want you to go, Jones," the superintendent answered. Jones and his fireman stood aside.

Masterson, the daredevil of the division, stepped forward.

"I can't go! I won't go up against a thing where they hain't no chance! Leave off the giant and I'll pull her."

"But the giant must go, for the train goes to save the miners in the cave-in. We are not sending up there to add more to the number that now sit round and hold their hands!" The superintendent spoke sharply. Masterson, with a self-satisfied smile, stood aside with his fireman.

Parkman, the last of the four, stepped out, hung his head, and stammered:

"I ain't agoin'."

The superintendent said nothing, and Parkman and his fireman stood with the others who had refused.

The hulking giant who had skulked behind now shambled forward. He tried to square his shoulders, but they drooped quickly; he tried to hold up his head, but he only jerked his chin. His eyes

blinked like those of an animal threatened with blows on the face, and his lips opened and closed without a word. There was something piteous in his attitude. The superintendent spoke not unkindly:

"Purdue, the caller only brought you because I forgot to tell him there was no use."

The coarse hands of the giant fluttered for an instant and then he found his voice:

"I'd like to have the chance."

The superintendent smiled in spite of himself, and Masterson snorted with vast incredulity:

"Old Purdue!"

The gravest and most sympathetic smiled; the others roared.

The superintendent recovered his equanimity and studied the frightened face of the man before him. Then he said slowly:

"Purdue, you have been eligible for an engine now for fourteen years. You know your record as well as any of us. As a fireman, you jumped half a dozen times when there never was a wreck. You never could have an engine on a regular run under me. You could not have this one if there was any one else to go.

"But we have promised the manager of the Lost Horse the men and powder if we could get a crew to pull the train. Find you a fireman inside of twenty minutes, and remember that if you jump this time, you will never go back to the roundhouse even as a wiper."

Old Purdue tottered out without stopping to ask his favor of any of the firemen present. As he passed, they saw his face was white as chalk and that he was trembling from head to foot.

The outcome was pleasing to the crews that had refused to go. It would have to be developed by Old Purdue—the grotesque and farcical Old Purdue; the man who hadn't sufficient nerve to fire the engine on a work train.

It was a joke to be enjoyed beneath the noses of the superintendent and the despatcher.

The superintendent listened to them for an instant, and then his voice cut like a knife:

"And when it is explained why no

help came to the entombed men, it will appear that even a coward like Old Purdue would have pulled the train; but all other enginemen were greater cowards, and he could not get a man to give him steam."

Masterson sprang forward with clenched fists and angry face and cried:

"If he'll give me steam I'll handle her."

The superintendent ran to the door and called Old Purdue. He came, and stood frightened, with his cap in his hand, as if he feared permission had been given to some one else.

"Masterson has agreed to handle the engine, Purdue, if you will fire for him? Will you do that?"

Old Purdue's chin shook, and his hands worked nervously as he answered:

"I'd be glad to fire for Masterson. He's a braver man than me."

The comparison struck the rigibilities of the crowd, and all guffawed save Masterson.

Masterson was mad. He growled:

"And I'll let you fire for me, because you are a blunderin' ass—and because I might make a man of you! And if you open your head ag'in here in this crowd like that, I'll punch it for you!"

What might have resulted in horse-play was side-tracked, for the superintendent lifted a warning hand and cautioned the men to remember that this was an expedition to save the lives of men. The swing to the gravity of the occasion was accomplished when the despatcher, who had gone to the key for a moment, returned with the word:

"All hope of rescue from the other side is gone! The bridge over Buffalo River has burned! Carriton Siding reports that the trestle over Carriton Creek is likely to catch fire at any time, and he says that from his win-

dow he can see the fire licking away at the spruce next the snow-sheds! Hurry, or the débris will block the way!"

Without more ado the whole party dashed down the stairs to the platform outside. The night was thick, but over in the east there was the red glow of the fires, and every now and then a puff of wind brought clouds of pungent smoke and heat.

Down by the roundhouse, an engine gave two warning blasts, and then dashed up to the platform on which they stood. It paused, and, leaving a car, passed on.

"The dynamite!" the superintendent muttered.

The engine shot by them, backing down on a switch, and a moment later



"DROP THAT SHOVEL,
OR I'LL BRAIN YOU!"

came tearing forward again with another car, through the rude windows of which there gleamed faint lights. That was the car containing the miners. Then from down at the roundhouse came a mighty wail, and the steady tolling of a bell, and all murmured "Old 96."

An instant later 96 came rumbling down the switch, paused, and backed down to the coupling with the rescue

turned to the crouching and fear-struck volunteer, and thundered:

"Old man! it's a race fur life! Give her steam! Give her steam! Give her all there is in her, for I'll use it all! And if you start to jump, I'll brain you!"

He turned and steadily opened the throttle to the last notch and the speed became terrific. Old Purdue looked out into the flying night, and it seemed as if



THE SPEED WAS FANNING THE FLAMES.

train. Masterson grumbled some sort of thanks for the best engine on the division—the heaviest and fastest of the heavy and fast for which that mountain division was celebrated—and then clambered proudly to his seat.

Old Purdue climbed in mechanically, and did not turn his face to them. In response to the throttle, 96 swung slowly ahead, but Old Purdue did not look out, nor did he notice the men who cheered Masterson.

When the last frog had rattled beneath the pounding drivers, Masterson

the old desire to jump would master him, but the shame and contumely of the past held him back with a stronger hand.

Mechanically he got the shovel going and fired carefully. The dread of death had passed in Old Purdue—he had suffered its acutest agonies. He fired as Masterson had never seen a man fire before.

Old 96 leaped along like a thing gone mad until she took the grade. There the steep ascent cut down her speed, but she was flying with the swiftness of an express. Masterson, reckless though he

was, eased down the throttle notch by notch.

The steam in the gage showed 160, 180, 190, 195. By five-pound advances the hand went round until 250 showed—and Old Purdue mechanically shoveled in the coal and mechanically swung to the door with lightning-like precision. Masterson leaped across the cab, and yelled like a madman:

"Hold up! Can't you see the gage? You'll bust her boiler! We don't need steam going down! Drop that shovel, or I'll brain you!"

Old Purdue leaned against his side of the swaying cab and took a deep draft of the smoky air. He looked forward and, for the first time saw the fire ahead. The glow in the sky just over the grade was just what he had seen when the prairie burns by night. In an instant, they had topped the grade and were dashing down.

Ahead there was an arch of leaping flames that swung like a low-flung banner squarely across the tracks. On either side, as far as the eye could penetrate, the lurid palls of fire leaped and hurled upward and billowed in vast waves of smoke like a tempest-swept, infernal sea.

With an oath, Masterson threw on the air, and, reckless of the consequence to 96, threw her over into the reverse. Old Purdue, aware of what was going on, reeled back from the boiler against which the shock had thrown him and, hesitatingly yelled:

"Ain't you goin' on?"

"Not on your life! A man would be a fool! I'll back her in home to Craggs."

Old Purdue shifted his feet as the engine slowed down and then on a sudden he threw up his head and hand:

"I volunteered to take the train—and the train is goin'!" With that he threw her over into the forward, shifted the air and opened the throttle with a jerk.

Masterson struck once and ineffectually at him, and, with a frightened glance at the burning sheds, jumped.

Old Purdue leaped up to the throttle side and, craning his head far out, studied the blazing bow toward which he was hurling. As yet no timbers were sagging, nothing prevented his safe passage through unless parts of the frame-

work should give way as he advanced. He thought of the possibility of the powder-car catching fire, and opened the sand pipes to give him greater speed.

The pilot entered the flaming portal, and Old Purdue slipped over behind the fire-box and began shoveling coal. He counted eight shovels, and, looking up, saw no walls of flame about the cab.

He looked again to the mounting gage and then clambered onto the tender. He got the water-bucket and, filling it, crawled out onto the top of the car containing the men.

From that position he saw that the roof of the car behind was blazing in two places—and the speed was fanning the flames.

He balanced his bucket, ran nimbly along the reeling deck of one car and leaped to that of the other. At the first flame he spilled most of the water and put out the fire there. He went back to the other and fought that with his hands.

When the last ember was gone, he ran back again, but even as he leaped to the deck of the miners' car, a gust of flame swept up between.

He stumbled across the tender and shut down. He filled his bucket and once more ran back and this time clambered to the ground. As he stood by the blazing trucks that threatened each breathless second to ignite the terrible cargo above, he beat on the end of the car ahead and cried:

"Out there! Out—and help!"

In a moment the ground around him was swarming with the frightened Italians. He fought the fire with his bucket, coming back each time with it replenished, certain that each time would be the last before the explosion would end it all. And then, seeing he could make no headway alone, he ran to the cab and seizing the coal-hammer, drove the cowards to the work and made them beat the flames.

When that was done he drove them back into their car. Then with reeling brain he crawled into the cab, dimly conscious of the fact that 96 was leaking steam at joints that never had been known to give, and that her safety-valve was roaring louder than the flames.

He opened her throttle easily, fearful

of the high pressure against the half-cooled cylinders. She moved off slowly and for some unexplained reason did not gather speed. He threw the throttle open wider, but she only took the pace of an old freighter.

Purdue looked at the gage and saw that the steam was down to a hundred. He looked far ahead and saw that the trestle over Carriton was a mass of flame.

Without pausing, he bent to the task of making steam. Shovelful after shovelful he scattered in, until a little more would have choked the draft.

Then 96 began to take on life again. Old Purdue was glorying in her speed.

He looked forward again. The trestle was close at hand. His heart leaped as he saw that the rails lay true the whole way across and that none of the ties were burned off.

He pulled at the throttle, striving to open it beyond its limit, and just as the thing seemed done, there came a splitting crash and 96 trembled from peak to pilot, and her left-hand cab-side vanished.

She jolted for a hundred yards or so and came to a stop.

Old Purdue knew that keys came out of drivers, and that when they did, connecting-rods, spinning like windmill-sails, demolished whatever they touched.

He looked at the flaming trestle, and, with a torrent of oaths, got crowbar and wrenches and once more summoned the men. They came forth, gladly, all of them. They loosened the nuts as he directed them, and they helped pry the connecting-rod loose.

He ordered them to get in again, but they ran away.

Old Purdue heaved a sigh that was half relief, and again he crawled into the cab of 96. He made more steam and slowly opened the throttle, but she was on center—the other cylinder was dead.

He got down, and with his crowbar pinched her a little way, enough to give her head.

Again he clambered to his seat and gave her steam. She took it like the cripple that she was and hobbled off. He watched her carefully and saw her gathering speed and then he made more steam.

Out onto the quaking trestle the

crippled train dragged its way. The timbers beneath cracked and some of them fell down, sending up embers and clouds of sparks and sullen sounds. The heat grew terrific, the cab was full of the smell of blistering paint, and the roar of the flames was mighty.

But Old Purdue, who had passed the fear of death, mechanically shoveled coal.

At length, crawling, crippling, and thumping with her one cylinder, 96 gained the far approach—she groaned on a little farther and the train was clear.

Old Purdue shut down and went back again with his bucket to put out the fire that he knew would be burning under the car of dynamite. It was there, and again he fought it. Time and again he dashed to and fro. The strength of the man's body was gone, but the will of Old Purdue drove him on.

All the profitless life of the man was focused in this pressing moment to accomplish what other men might not accomplish in years.

Suddenly, from the lurid darkness beside him, the mining crew began shambling near. He heard them.

But this time Old Purdue did not need the coal-hammer to drive them. He had gained a quality, he had become a man to lead and to command.

He shouted and they ran to him! He bawled his orders and they faced death to do them!

When the fire was out he made them pinch the right-hand drivers over far enough to let her have a head of steam. Before he loaded them into their car, he selected a strong fellow to shovel coal, and again they crippled on.

About forty minutes later, Old Purdue whistled into the siding at the Lost Horse Mine, and more dead than alive sat down in the shanty where the operator was ticking away to tell how the train had arrived in charge of the man who had started out to fire the trip. After a long interchange of ticking the telegrapher handed him a paper.

It was a message of thanks from the superintendent. He was glad that there was such a man on the division, and all that. Old Purdue didn't make much fuss over it, however. What was greater than all the praise and adulation was the knowledge that, at last, he was a man.

Progress in Locomotive Building.

BY JOHN T. WALTERS.

THE improvements that busy minds are devising to make the American locomotive faster and stronger rank well up in line with the best achievements of to-day.

Since the old eight-wheel, or American type, in 1876, the steam-engine has gone through successive stages of betterment, until to-day we have the marvelous greyhound of the rails, with her Walschaert valve-gear, superheated steam, improved superheaters, and other new things; and the end is not yet. Let him who thinks that the time of the locomotive is on the wane, read this—and change his mind.

We are indebted to the American Locomotive Company for some of the information given in this article.

The Past Thirty Years Has Been the Period of the Locomotive's Greatest Development—The Importance of the Walschaert Valve-Gear and Superheated Steam in Recent Construction.

BEFORE 1876—the year of the Centennial Exposition at Philadelphia—American locomotive practise had become, to a certain extent, standardized; and certain types had been generally adopted for the various classes of service.

For fast passenger service, the eight-wheel, or American, type was almost universally used at that time. This type was also used to some extent in freight service. Where the requirements demanded a greater power than could be provided with the four coupled wheels of the American type, the ten-wheel type, with six coupled driving-wheels and a four-wheel leading truck, was employed.

This latter type was also extensively used in freight service, and, as at the present time, was considered a very satisfactory type for mixed service—that is, either passenger or freight.

In freight service, the mogul type, with

six coupled driving-wheels and a two-wheel leading truck, and the consolidation type, which was a development of the former by the addition of another pair of driving-wheels, were generally used.

At this time the eight-wheel type had attained a total weight of seventy-five thousand pounds, and the hauling of three hundred and thirty-six tons on a level road at an average speed of thirty-five miles an hour without stops was considered a very good record in passenger service.

When we compare such engines with those built by the American Locomotive Company, weighing two hundred and twenty-six thousand pounds, which to-day handle the Twentieth Century Limited—the eighteen-hour train between New York and Chicago—and maintain a speed of sixty miles an hour over a level road with a train of six hundred tons, we realize the tremendous growth of the locomotive during the past thirty years.

In the ten-wheel mogul and consolidation types, weights of 84,000, 80,000, and 100,000 pounds, respectively, were common. To-day the American Locomotive Company is building a freight-locomotive for the Delaware and Hudson Company which will weigh 441,000 pounds.

Ten-Years' Development.

From 1876 to 1886 there was a great increase in the weight and power of locomotives. The development was along well-established lines, there was little departure from standard practise, and no new principles were introduced.

This period, however, saw the introduction of a new type of wheel arrangement—the decapod, so called because it had ten driving-wheels. Like the consolidation type, the decapod had a two-wheel leading truck and was merely a development of the former type to meet special conditions and provide greater power without overloading the rails.

About this time, however, a very distinct departure was made from existing locomotive practise by the introduction of the compound principle. Hitherto, American locomotive designers had given little attention to improving the efficiency of the locomotive; but now the demand arose for greater economy in operation.

Compounding was universally used in marine and stationary practise, where high duty and great economy were desired, and this principle had also been employed in locomotive practise in Europe with more-or less success.

In the effort to satisfy the demand for saving in coal and water, locomotive designers in this country, naturally, turned their attention to the development of a compound locomotive adapted to American conditions. In 1889 the Baldwin Locomotive Works brought out a compound locomotive, built after designs by S. M. Vauclain, of that company.

The First Compounding.

This system of compounding was first applied to an eight-wheel engine built for the Baltimore and Ohio Railroad, and employed the use of four cylinders—a high and low pressure cylinder on each side of the engine.

The two cylinders on each side were placed one above the other, and both pistons were connected to the same cross-head. The steam distribution to the two cylinders on each side was controlled by a single hollow piston-valve operated by the ordinary form of Stephenson shifting-link motion.

A device was provided, consisting of a three-way cock operated by the engineer, by means of which, in starting, steam from the boiler was allowed to pass from one end of the high-pressure cylinder to the other, and thence through the valve to the steam end of the low-pressure cylinder.

A large number of locomotives of this type were built, but the economies effected in coal and water consumption were offset by an increased cost of maintenance due largely to the use of a single cross-head for the high and low pressure cylinders.

As the power in the cylinders was not equal, the cross-head was subjected to unequal strains, causing in many cases failure of that part and making it impossible to keep the piston-rod packing tight.

The Vauclain Four-Cylinder.

Because of these objectionable features of design, the Vauclain four-cylinder compound is but little used to-day; but it was among the first compound locomotives to meet with any success in this country, and constitutes one of the most important steps in the development of the modern American locomotive.

In the same year that the Vauclain four-cylinder compound was introduced, the Schenectady Locomotive Works brought out a two-cylinder compound engine, built under patents granted to A. J. Pitkin.

The feature of this system of compounding was the intercepting-valve, which was so designed as to admit live steam at reduced pressure into the low-pressure cylinder in starting, and prevent the pressure backing up against the high-pressure piston; and to automatically change to the compound position when the pressure in the receiver-pipe, located in the smoke-box, reached a certain amount.

This system also included a so-called separate exhaust-valve, operated by the

engineer, which permitted the exhaust steam from the high-pressure cylinder to be diverted directly to the stack and the locomotive operated as a single-expansion engine with materially increased power.

One of the first examples of this type of compound was built for the Michigan Central Railroad, and its performance was very satisfactory. Like all the earlier types of compounds, however, it has seen its day, and few of this type are now built.

Another type of two-cylinder compound engine was soon after brought out by the Richmond Locomotive Works in which the Mellin system was employed.

The Richmond compound was identical in principle with the Schenectady compound, but differed essentially from the latter in the design of the intercepting and separate exhaust-valve. From the standpoints of simplicity of design and operation, economy of fuel and water, and low cost of maintenance, it has proved very successful.

Though, as applied to two-cylinder engines, the use of the Richmond or Mellin system of compounding is at the present time limited, this same system is a distinctive feature of the Mallet articulated-compound locomotives built by the American Locomotive Company, which type will be considered later.

The Compound's Future.

The introduction of the compound engine may be considered largely responsible for another important improvement in American locomotive design—namely, the use of the piston-valve.

As the locomotive increased in size and power, and larger cylinders were used, the valves controlling the distribution of steam to the cylinders were necessarily made larger in order to admit larger volumes of steam.

At this time the flat side-valve, even in simple engines, had reached such proportions that difficulty was experienced in perfectly balancing it. The unbalanced weight of the valve put a great strain on the gear, causing the parts to spring, if not to break, and also made it hard to handle the reverse-lever.

The combined effort of the engineer and fireman was often required to "hook

up" the reverse-lever. To overcome these difficulties it became necessary to evolve some new design of valve, and the cylindrical form, commonly known as the piston-valve, in which the pressure on all sides was equal, giving almost perfect balance, was introduced.

Although the first instance of the use of the piston-valve on an American locomotive antedated the introduction of the compound, its first successful application was in the case of the Vauclain four-cylinder compound locomotive, where it was necessarily employed.

On two-cylinder compound locomotives the piston-valve soon came into general use.

Making Engines Simpler.

In the application of this type of valve to simple locomotives, the Brooks Locomotive Works took the lead of other locomotive-builders.

The many advantages of the piston-valve over the balanced slide-valve, particularly its nearly perfect balance and its adaptability to any type of valve-gear, have led to its general use at the present time on simple as well as compound engines, although some motive-power men still prefer the latter type, the design of which has been improved so as to give more perfect balance.

About the time that the early types of compound locomotives were being developed, the requirements of passenger service had become so severe that they had almost outgrown the capacities of the then favorite types of passenger-engines.

In 1893, the eight-wheel passenger-engine had reached its highest development in the class represented by the famous locomotive No. 999, of the New York Central Lines, which was exhibited at the World's Fair in Chicago.

As the speed of passenger-trains increased locomotives were required with a larger steam-making capacity than could be provided in the eight-wheel type. In this type, with the larger driving-wheels required for high-speed service, the fire-box is necessarily placed between the driving-wheels, and the amount of grate area available is consequently limited. Not only is the grate area limited, but also the heating surface.

In order to secure a larger boiler and sufficient grate area to provide for the large fuel consumption required in fast passenger service, a new type of wheel arrangement was introduced in 1893 by the Baldwin Locomotive Works. This was called the Columbia type, and had a two-wheel leading truck, four coupled driving-wheels, and a pair of trailing wheels, over which the fire-box was placed.

Advantage of Trailers.

The advantage of the use of trailing wheels in this design was quickly recognized. They permitted a large grate area in a satisfactory design of wide fire-box adapted to burning soft coal by placing the fire-box over these wheels. The Columbia type, though not itself extensively adopted, was the forerunner of the types of engines which have since become the favorites for high-speed passenger service.

Soon after the Columbia type appeared, the Atlantic type, with a four-wheel leading truck, four coupled driving-wheels, and two-wheel trailing truck, was introduced, and soon became popular, superseding the eight-wheel type.

In 1901, the Brooks Locomotive Works introduced another type of high duty passenger-engine, having a two-wheel leading truck, six coupled driving-wheels, and a pair of trailing wheels. The first examples of this type, called the Prairie, were built for the Lake Shore and Michigan Southern Railway, on which road it became the favorite type of passenger-engine.

Owing to the fact that most motive-power men consider a four-wheel leading truck essential to safety for an engine run at high speeds, the Prairie type was never very extensively employed in passenger service, but is largely used in freight service.

When the weight of passenger-trains outgrew the power that could be provided with only four coupled driving-wheels, the design of passenger-engine known as the Pacific type was introduced. This was a development of the Atlantic with an added pair of driving-wheels. This type is, to-day, the favorite for the most severe passenger service, and, it might be said, has taken the place of its

predecessor, the Atlantic type, on most of the roads in this country.

During this period, locomotive designers had been endeavoring to improve the compound locomotive.

The two-cylinder type had not met with the success anticipated, and although the Vauclain four-cylinder type was quite extensively used, its faults were clearly recognized.

In 1900, the Schenectady Locomotive Works brought out a four-cylinder compound in which the two cylinders on each side were placed one ahead of the other or in tandem, and the two pistons were mounted on a single piston-rod connected with its cross-head.

A similar arrangement of cylinders had been previously introduced by the Brooks Locomotive Works in 1893, but had not proved successful, owing to certain complex features of the valve arrangement.

In the Schenectady tandem compound, these faults were corrected. By setting the cylinders tandem the power of both cylinders was exerted along the same line, thus overcoming the most serious defects in the Vauclain four-cylinder compound—namely, the connecting of two cylinders of unequal power and in different horizontal planes with the same cross-head.

A number of this type of compound were built, but, as has been the case with all the earlier types of compound engines, it has been superseded by other and later types.

Increase in Weight.

The period from 1893 to 1904 saw an enormous increase in the weight and power of both passenger and freight engines. A comparison between the engines exhibited at the World's Fair in Chicago in the former year and the locomotives at the Louisiana Purchase Exposition in the latter year showed that during these eleven years the average total weight of passenger-engines had increased fifty-one per cent and the weight on driving-wheels thirty-three per cent. In the case of freight-engines, the increase in the average total weight was forty-six per cent, and fifty-four per cent on driving-wheels.

During this period, the Consolidation type had become the standard heavy freight-engine, and had reached its pres-

ent limit in power in two locomotives built for the Bessemer and Lake Erie Railroad in 1900 by the Pittsburgh Locomotive works. These engines had a total weight each of 250,300 pounds, and the cylinders were twenty-four inches in diameter and thirty-two inches in stroke.

Where the conditions required a greater weight on driving-wheels than could be provided in the Consolidation type without overloading the rail, other types of wheel arrangements were introduced.

Notable among these was the famous Santa Fe type, so called because it was first used on the Atchison, Topeka, and Santa Fe Railroad. This type has a two-wheel leading truck, ten driving-wheels, and a trailing truck.

It reached its highest development in the class represented by the tandem compound locomotive built for the Santa Fe by the Baldwin Locomotive Works, exhibited at the St. Louis Exposition, which had a total weight of 287,000 pounds.

The Mikado type, having a two-wheel leading truck, eight coupled driving-wheels, and a two-wheeled trailing truck, was also developed to meet special service conditions, and is now quite extensively used in freight service.

On roads having long and steep grades, the increase in weight and power of the standard freight-engine had, at this time, created conditions which it was hard to meet with the existing types of locomotives.

The Mallet Articulated.

In order to pull a train up these grades, which the road engine could easily handle over the remainder of the road, it was often necessary to use several helpers, or pushing engines, which entailed both expense and delay in moving the traffic.

To meet these conditions, the American Locomotive Company, in 1904, introduced the Mallet articulated-compound locomotive. This type of locomotive, which derived its name from its designer, Anatole Mallet, a prominent French engineer, had been successfully used in mountainous sections of Europe for several years to meet conditions analogous to those existing in this country.

It remained for the American Locomotive Company, however, to modify and

adapt this design to meet American requirements.

This type is practically two locomotives combined in one, and employs two sets of engines under one boiler. There are four cylinders compounded together. The two pairs of cylinders are connected to independent groups of driving-wheels. The rear group of wheels, which are driven by the high-pressure cylinders, is carried in frames which are rigidly attached to the boiler, to which the cylinders are also secured in the usual manner.

The front group of wheels with the low-pressure cylinders are, however, carried in frames which are not rigidly attached to the boiler, but which have a center-pin connection with the rear group, being thus, in effect, a truck which is capable of swiveling radially around its pivot.

Weight Equally Distributed.

The advantage of this type of construction is that it provides a locomotive with a short, rigid wheel-base, capable of easily passing through curves of very short radius, with the weight distributed over a long total wheel-base and a large number of axles, so that an enormous total weight can be provided without excessive weight on the individual wheels.

The first engine of this type was built for the Baltimore and Ohio Railroad. It had twelve driving-wheels, arranged in two groups of six each. Its enormous weight of 334,500 pounds exceeded anything that had previously been dreamed of as possible in a single engine.

At first, railroad men spoke of it as "freakish" and "monstrous," and predicted all kinds of failures for it. Contrary to all predictions, it has proved successful from every standpoint, and was the forerunner of what, to-day, promises to be the most efficient freight-engine of the future.

On the Baltimore and Ohio, this engine soon earned the nickname "Maud," for the famous mule which could move anything it went up against.

The articulated-compound type lends itself very readily to the concentration of enormous power in a single engine, and, since its introduction, a large number have been built for various roads.

The record for weight established by

the Baltimore and Ohio engine was soon exceeded by the construction, for the Erie Railroad, by the American Locomotive Company, of three engines of the articulated type having sixteen driving-wheels and a total weight of 410,000 pounds each.

The Baldwin Locomotive Works, as already mentioned, have recently built two engines of this type for the Southern Pacific having a total weight of 425,000 pounds; six more are under construction by the American Locomotive Company, weighing 441,000 pounds each.

Although originally introduced for helping or pushing service, the articulated type of locomotive has proved itself very efficient as a road engine; and offers the possibility of increasing the capacity of a division and moving the greatest amount of traffic over the line at the least operating cost.

What Walschaert Gear Is.

The introduction of the Mallet type of locomotive led to another important innovation in American locomotive practice; namely, the use of the Walschaert valve-gear.

In the Mallet type of locomotive, the flexible receiver-pipe between the high and low pressure cylinders being located between the frames on the center line of the engine, it was impossible to use the ordinary Stephenson valve-gear. The Walschaert valve-gear, which is located *outside* of the driving-wheels, was, consequently, applied to the Baltimore and Ohio Mallet engine.

This type of gear, which derives its name from the inventor, Egide Walschaert, was patented in Belgium in 1844, and soon became the standard type of valve motion on the railroads of Europe, even as the so-called Stephenson shifting link motion, which was invented in England about the same time, was adopted in America.

Although William Mason, one of the most prominent of early American locomotive-builders, had attempted to introduce the Walschaert valve-gear into American locomotive practice in 1876, and had exhibited an engine equipped with that type of gear at the Centennial Exposition, he did not meet with any suc-

cess, as he was ahead of his time, and the American railway world was not then ready to adopt a new valve motion.

As the locomotive has increased in weight and power, the parts of the valve-gear have reached such proportions that there is hardly room enough between the frames of a modern heavy freight or passenger engine for the accommodation of a satisfactory design of Stephenson valve-gear.

With the Stephenson valve-gear, the parts are so crowded together between the frames that it is almost impossible for the engineer to give them proper inspection or lubrication.

The application of the Walschaert valve-gear to the Baltimore and Ohio Mallet engine again directed the attention of American locomotive designers to it as a means of meeting present-day conditions.

Being located outside of the frames, this type of gear is perfectly accessible for inspection and lubrication, so that it is much more easily maintained than the Stephenson gear. Moreover, by removing the valve-gear from between the frames, a better opportunity is afforded to introduce a strong system of frame-bracing, thus tending to reduce frame failures.

The principal difference in action between the two types of gears is that the Walschaert valve-gear gives a constant lead at all cut-offs, while with the usual construction of the Stephenson valve-gear the lead increases as the reverse lever is "hooked" up.

The superior advantage of the Walschaert valve-gear over the Stephenson link motion in the matter of accessibility has led to its use on all of the most important American railroads, and, to-day, it has almost taken the place of the Stephenson gear as the standard type of valve motion.

Another Improvement.

About the same time that the Mallet articulated-compound locomotive appeared, another important advance was made in the development of the American locomotive by the introduction of the four-cylinder balanced compound locomotive.

In all reciprocating engines, some provision has to be made to counteract the disturbing effects of the horizontal moving of reciprocating parts, such as pistons, cross-heads, etc. In locomotives having two crank-pins and main rods, this is accomplished by placing a certain amount of weight over that required to balance the revolving parts in the driving-wheel counterbalances opposite the crank-pin.

Except when the piston is at either end of the stroke, this excess weight exerts a vertical force due to the centrifugal action, which increases or decreases the normal pressure of the wheel on the rail according as the counterbalance is below or above the center of the wheel, causing what is commonly called the "hammer blow."

The vertical force of this excess weight is greatest when the counterbalance is at the top or bottom quarter of its revolution. In the modern high-speed passenger-engine, with its heavy reciprocating parts, this vertical force is frequently excessive, and causes serious injury to the track.

To overcome this difficulty, European locomotive designers had developed the four-cylinder balanced compound locomotive in which the driving mechanism is so arranged that the reciprocating weights balance each other.

This type of engine also provided all the advantages of the compound principle in the way of increased capacity and improved economy, and offered the means of meeting the increasing weights of trains and severe requirements of service without increasing the weight and size of locomotives, the limit of which seemed to have already been reached.

No Increase in Size.

American locomotive designers consequently directed their efforts toward modifying and adopting the European designs to meet conditions in this country.

In 1902, the Baldwin Locomotive Works brought out a four-cylinder balanced compound locomotive built after the designs of S. M. Vauclain. The first engine of this type was a ten-wheel locomotive built for the Plant System.

In the Baldwin balanced compound

engine the four cylinders are placed side by side, usually with their centers in the same horizontal plane, the two low-pressure cylinders being outside the frames and the two high-pressure cylinders inside.

The cylinders are cast in two parts, with "half-saddle" as usual, each part containing a high and low pressure cylinder with their valve-chest above and between them.

Steam distribution to the two cylinders on each side is controlled by a single piston-valve, operated by a single valve-gear. In the earlier engines of this type the Stephenson link motion was employed, but many of the subsequent designs have been equipped with the Walschaert valve-gear.

In Opposing Motion.

The main rods of the high-pressure cylinders connect to one of the axles, which is cranked for that purpose, while the two low-pressure cylinders are connected to crank-pins on the driving-wheels in the usual manner.

The cranks of the driving axles on the same side of the locomotive are 180 degrees apart. In other words, when one of the pistons is at the front end of its cylinder, the other piston on that side is at the back end of its cylinder, and the horizontal or reciprocating parts are thus in opposing motion, and, consequently, balance each other without the need of excess balance in the wheels.

In the ten-wheeled or Atlantic type engines, the inside main rods are usually connected to the leading axle, while the outside main rods are connected to either the front or second pair of driving wheels, as may be preferred.

In cases where the leading driving axle is so close to the cylinders that it is impossible to connect the high-pressure cylinders to it without making the main rod too short, as in the Pacific and Prairie types, they are connected to the second driving axle.

In such cases, either the inside cylinders are inclined at such an angle that the main rods will clear the front axle, or else the main rods are constructed with a loop of bifurcation which embraces the leading axle.

Two years after the appearance of the Baldwin balanced compound engine, the American Locomotive Company introduced a compound engine in which the balanced principle was employed, built after the designs prepared by F. J. Cole, consulting engineer of the company.

In this type of compound, the low-pressure cylinders are outside the frames and the high-pressure cylinders are inside, but located ahead of the low-pressure cylinders, following the arrangement employed in the famous De Glehn balanced compound locomotive which had been so successful abroad.

In One Casting.

Separate valves are used for the high and low pressure cylinders on the same side of the engine, but these are mounted on a single valve stem operated by a single valve motion.

Both high-pressure cylinders, with their respective valve-chambers, are in one casting; while the low-pressure cylinders, with their valve-chambers, are cast in pairs with "half-saddles," in the manner usual in single expansion engines. The valve-chambers of the high-pressure cylinders are in exact line with those of the low-pressure cylinders, the two being connected together so as to form a continuous valve chamber.

This arrangement of cylinders permits of balancing the reciprocating parts and also of dividing the application of power between two driving axles with the least change from the usual construction of single expansion engines.

By placing the high-pressure cylinders ahead of the low pressure, the inside main rods can be connected to the leading axle in all the present types of passenger-engines and a good length of main rod secured without increasing the length of the wheel-base.

This also involves a corresponding increase in the length of the boiler and flues, which latter course must be followed to obtain the same results where the four cylinders are placed abreast, as in the case of the Baldwin balanced compound.

Although it cannot be said that the four-cylinder balanced compound has been generally adopted, it offers impor-

tant advantages; and it would seem that the further development of the passenger-engine will probably be along the line of the four-cylinder engines—either the balanced compound, the balanced simple, or the articulated compound type.

In this connection it is interesting to note that the American Locomotive Company has recently built two Atlantic type passenger-engines for the Chicago, Rock Island and Pacific Railroad, having four simple cylinders arranged on the balanced principle and using superheated steam.

Simplicity of construction has always been the keynote of American locomotive practise. The complications in design resulting from the application of the compound principle to locomotives is one of the main reasons why the compound locomotive has not met with the success in this country that it has abroad.

American railroad officials, however, are alive to the necessity of improved economy, and the effort to effect this and avoid the disadvantage of the compound principle has led to the introduction of another important principle in American locomotive practise.

Superheated Steam.

This principle is the application of superheated steam to locomotives. Superheated steam is nothing more nor less than very hot steam. It is steam of a higher temperature than that which it attains in the boiler in being raised to the boiler pressure. By separating the steam from the water from which it is generated and passing it over very hot surfaces, additional heat can be added to it. This is what is done in a locomotive.

When steam enters a locomotive cylinder it becomes cooled by coming into contact with the cylinder walls and it becomes further cooled by performing work in the cylinder. If the steam is of ordinary temperature, a large amount of it is turned into water because of this cooling process, and passes through the cylinder without doing any work and is, therefore, wasted.

Every engineer knows that, besides doing no work, this water in the cylinders is dangerous, and, if not released,

causes broken cylinder-heads, bent piston-rods, etc. The use of superheated steam offers the means of preventing the steam being turned into water, or what is commonly known as cylinder condensation; since all the heat that is added to the steam may be given up before it is cooled down to the point of where it becomes water.

By adding sufficient heat to the steam, therefore, all the loss of power which otherwise occurs can be prevented and a great saving in coal and water effected.

Superheated steam has another important advantage, inasmuch as its temperature is increased, its volume is also increased, so that it will take a less weight of steam to fill the cylinders if the steam is superheated than if it is at an ordinary temperature. A further saving in coal and water to do a given amount of work is thus effected.

Although the advantages to be derived from the use of superheated steam were fully appreciated by locomotive designers, and although numerous attempts to apply it to locomotives were made in the early days of locomotive building, it is only comparatively recently that this principle has been successfully introduced into locomotive practise.

Recently Introduced.

In 1897, Dr. William Schmidt, of Germany, invented a design of superheater which was applied to two engines on the Prussian State Railway.

In 1904, the American Locomotive Company brought out a superheater after the designs prepared by F. J. Cole, who was also responsible for the four-cylinder balanced compound built by that company.

This design was applied to several engines, and considerable saving in fuel and water effected. Since that time over 300 locomotives equipped with superheaters have been built by that company. All of the superheaters applied by the American Locomotive Company have been of the fire-tube type; that is, a number of ordinary boiler tubes are replaced by larger tubes, in which are placed the superheater pipes through which the steam has to pass on its way from the throttle to the cylinders.

With this arrangement, the hot gases direct from the fire are utilized to superheat the steam and high temperatures are obtained, by which only can be secured the greatest advantages that are to be derived from superheated steam.

Improved Superheaters.

In the latest form of the American Locomotive Company's superheater, each of the large tubes contains four superheater pipes which, as they emerge from the tube, are bent around horizontally to meet the header or steam boxes which are located in either side of the smoke-box. These headers are divided into two compartments, and steam from the throttle enters one compartment and passes into the superheater pipes.

It flows over the hot surfaces of these pipes, from which it receives additional heat and is carried back again to the other compartment of the header, from whence it enters the cylinders.

Two forms of this design are in use, one gives a very high degree of temperature and the other a moderate degree.

Superheated steam has been used on the Canadian Pacific Railway to a much greater extent than on any other American road. The present standard superheater on this road is also of the fire-tube type, of the design known as the Vaughan-Horsey type, after the names of its inventors, H. H. Vaughan, assistant to the vice-president, and A. W. Horsey, district master mechanic of the Canadian Pacific Railway.

Following the introduction of the Cole superheater, the Baldwin Locomotive Works brought out a design of superheater of the smoke-box type, in which the waste gases in the smoke-box are utilized to superheat the steam. As the temperature of the gases in the smoke-box are not sufficiently high to give very much superheat, comparatively little economy is effected by this type of superheater, and the most approved practise, here and abroad, is to use the fire-tube type of superheater.

The application of superheated steam to locomotives is fast growing in favor in this country, and promises to be one of the most important developments in present-day locomotive practise.

THE DAUGHTER OF THE IDOL.

BY JOHN MACK STONE.

Help Comes in the Nick of Time
and All's Well That Ends Well.

CHAPTER XXIII.

How the High Priest Died.



HE came over to me, took me in her arms, and kissed my lips.

"Save Uncle Dick," I whispered. "You may escape in time."

"There is no way," she said.

"Be a brave boy, Roland, and go back to the United States and tell your story. Perhaps some one will listen to you, and you can have these people punished. You must live, for you have your whole life before you."

"And what will my life be, when I know it was gained at the cost of my uncle's life?" I asked.

"You must be brave," she said again. "Show that you are a little man."

Then she kissed me again, looked long at Uncle Dick, took the captain's hand, then turned and walked back toward the guard and away from the altar.

As she left us we heard chanting, and turned to find that the doomed priests were entering the clearing under guard. They came forward quickly, and stopped just outside the circle of shells.

"What is the meaning of this?" the high priest demanded.

"It means," said Welch, "that the people will not stand by and see the great aitu desecrated again. It means you lacked the courage to attend to the duties of your office."

"I acted in wisdom and fairness," the high priest said. "I call upon you now to stand aside, and allow me to address the people."

"The people do not care to hear you."

"The law says a condemned man may have his say," the high priest said in a loud voice. "Dare you deny me the rights of the aitu's law?"

In the face of the announcement, Welch could not refuse. The high priest walked within the circle of shells, and spoke.

"When you entered the aitu's temple last night, and desecrated it by your madness, I and my priests were at council.

"You took me and my brethren from the temple, and called us condemned. We were not condemned before the sacred aitu, and therefore an execution on this sacred altar will be a profanation. We have served you long and faithfully, and this is the way you forget. Shame, my children! Where is your reasoning?"

"Enough!" Welch cried, afraid the sentiment of the mob would change.

"I will go on," the high priest declared. "I am here to save the aitu from further profanation. My people, in searching the law, we found that in a case such as this there is a way the aitu may be purified.

"The law says that at any time there is the slightest doubt of the aitu's sanctity, it may be made pure by the execution of a priest upon the sacred altar. The law further states that all the brethren, assembled in council, may select by silent lot the priest so to die. If it is your wish that the aitu be preserved sacred, we will return to the temple and go through the ceremony in the presence of the aitu.

"After the execution of the priest these prisoners may be rightfully condemned and executed without incurring the aitu's displeasure, and our temple will be sacred again and our land safe from distress."

"No, no—it is not the law!" Welch cried.

"It is the law," the high priest said.

It is peculiar how the sentiment of a mob will change in the twinkling of an eye. Here was their high priest, a man they had respected for years, standing clothed in the dignity of his office, speaking with the voice of wisdom. The reaction was at hand.

"Let us preserve the sanctity of the *aitu*!" they cried. "To the temple! To the temple! Let the priests ballot! What differs it? These men must die!"

In vain, Welch tried to stop them. He knew how the balloting would result. They surged forward to kiss the garments of the priests. The procession was formed again, and we made our way back along the forest path, up the broad avenue, and to the temple. We were taken to the room of worship and placed under guard.

Then, in the silence of death, the high priest prepared the ballots. One by one the priests stepped forward and selected one, and marked it. Welch did not dare speak, for the law said a word meant death during the ceremony.

When all the ballots were marked, the high priest placed them on a golden plate, and put the plate at the *aitu*'s feet. Then the chant began, and candles were burned. In the presence of them all the high priest counted the ballots and put them back at the feet of the idol. Then he walked across to Welch.

"The *aitu* claims your life, brother," he said. "Through your death it will become purified."

"It is a trick!" Welch cried to the people. "They are killing me because I took your side last night. Don't you see it is a trick? I returned the *aitu* to you from a foreign land. I have done many things for you."

The high priest silenced him.

"My children," he said to the people, "the brother looks at the matter in the wrong light. He is not condemned because of a fault; he has been chosen to have the greatest honor possible to one in the priesthood. What greater honor could there be for any of us, my children, than to give up our lives that the *aitu* may be blessed?"

"It's a trick!" Welch cried again.

"It is an honor no true son of the *aitu*

would refuse, unless he be a coward!" the high priest replied.

"I'll show you I am no coward!" Welch screamed.

His hand came from beneath his robe, holding a revolver. The weapon spoke, the smoke drifted to one side, and the high priest lay upon the floor, blood flowing from a wound in his breast. And Welch, waving the revolver in his hand, dashed for a side door.

Then bedlam broke loose again. The other priests ran to their fallen chief.

"He is dead—dead!" they moaned.

"The high priest is dead—is dead!" the people screamed.

They rushed for the door through which Welch had disappeared. Like angry beasts they went through in pursuit.

"He killed a man in the presence of the *aitu*!" they screeched. "The *aitu* is defiled again until he dies!"

In time all of them were gone. The guards had forgotten us in the face of this great tragedy. Only the priests remained, surrounding the body of the one who had been the head of the temple. And as we watched they lifted the body and bore it into another room.

"Now is our chance!" Captain Hawson cried.

"We cannot leave the temple," said Ruth, "for they will see us. As soon as they have dealt with Welch they will remember us."

"Then we can hide within the temple," the captain said.

He ran toward one of the doors, and we followed. Through a great corridor we hurried in the darkness and into another room, and from that to another apartment in another part of the temple.

There was a window in the room, and we looked out. The mob surged about the square. They had taken Welch easily, and were carrying him down the avenue.

"Not to the execution ground," some of them were crying. "We cannot slay him there, for we are not priests."

"Then get the priests," others answered.

While some held Welch under guard, others ran back toward the temple. In a short time they emerged again, two of the priests with them. And then the crowd hurried on down the broad avenue, on the way to the execution-ground.

"It is not safe to remain here," the captain said. "They will search the temple and find us."

We left the apartment and went through another dark corridor, making our way to the first floor of the temple, and emerging in the worship-room behind the *aitu*.

Adjoining the main worship-room was a smaller apartment used by the priests. It had but the one entrance, and only one window, which was high up in the wall. We hurried into this room.

There were weapons there, and we seized them gladly and saw that they were properly loaded. Then the captain and Uncle Dick carried heavy furniture across the room and piled it against the door.

Then we waited for their coming.

CHAPTER XXIV.

How It All Ended.

HALF an hour passed, and we heard the mob approaching the temple, chanting and screeching.

"It will soon be over now," the captain said.

I sat in the corner, saying nothing. It was not a pleasant predicament, to say the least, and the future looked dark. Uncle Dick and Ruth Holland were standing near me, in each other's arms.

We heard the mob start to enter the temple, heard the frantic people rush from room to room below, searching for us, crying to the priests and demanding what had become of us.

There was a great crowd outside in the square, waiting for us to be captured and taken out. Their cries were fearful.

Suddenly, as we listened, we heard the tone of their cries change from anger to surprise, heard loud shouts and commands, and the sound of firing.

"They must be fighting among themselves!" Uncle Dick said.

"Pray Heaven such is the case," the captain answered. "That will give us another respite."

"Listen!" I cried suddenly, so loud that the men in the temple must have heard me.

For I had heard something other than the howling of the mob. The others heard it, too.

It was the shrill note of a bugle.

"The cruiser is here!" the captain cried.

"Thank Heaven!" Ruth exclaimed.

Then the firing in the square became a regular battle. The bugles rang out loud and clear, and mingled with the howls of rage and fear from the fanatics were the cheering cries of the marines and bluejackets as they fought their way toward the temple.

"Here, Roland!" the captain cried from beneath the window.

He helped me to his shoulders, and I stood up and peered out into the square. In regular formation the men from the cruiser were advancing on the temple, driving the fanatics before them. The air was filled with smoke which half obscured the scene of battle. The fanatics were not cowards—they fought bravely enough—but no-body of untrained men, no matter how large, could stand up before the splendid discipline of Uncle Sam's navy.

Foot by foot the fanatics gave way; then they broke and fled from side to side, throwing away their weapons, screeching at the top of their voices as they rushed for safety to the jungle. And the men from the cruiser rushed for the temple doors.

"If they are only in time!" Uncle Dick said. "These men will kill us now, as soon as we are found."

I got down from the captain's shoulders, and we crossed the room to the door. The crowd was in the main worship-room now, looking into all the rooms that opened into it. The din was deafening. We could not understand what was said.

Then the assault upon our door came. We placed Ruth in a corner, and the three of us stood in a line, each with a weapon handy, ready to sell our lives as dearly as possible and reach the sailors alive if we could.

The battering at the door continued. The cries grew louder. The battle raged suddenly in the temple-room, for the sailors and marines had reached there.

"I wish we were out there," Uncle Dick cried.

"It is safer in here at present," the captain said.

Volleys of shots sounded in the temple-room. We could hear the sailors cheer-

ing; could hear the fanatics giving their peculiar battle-cry.

Which side was conquering, we did not know. The fanatics could not stand before the marines in the open; but in the temple, in the presence of the great aitu, it might be a different thing.

Again the cries of the fanatics changed in tone, and now became cries of fear. There were cries of fear in English, too.

"What can it be?" Ruth cried.

The captain had gone nearer the door, and was trying to hear.

"They are crying 'Fire!'" he said. "Some one must have set fire to the temple. It will burn like tinder!"

Outside in the large room there seemed to be a stampede. But the battering at the door continued, and in time it was forced open a little.

"Stand ready!" the captain cried. "Give it to them! We must fight our way through! Don't forget Miss Holland when the time comes!"

The battle in the temple-room still raged. Now we could hear the crackling of the flames. The door was forced open a foot, and the thick, black smoke poured in upon us.

"To the floor!" the captain cried. "Crawl toward the door!"

We threw ourselves on the floor. The smoke filled the room, and poured through the one window into the open air. We could see flames in the temple-room, could see the figures of men dashing through the smoke. They were coming nearer.

"This way! Get them out!" some one cried in English.

He was answered by screams from the fanatics. Half a dozen men showed in the smoke just outside the door. In a moment they were sprawling over the furniture we had piled there.

In another moment the furniture had been hurled to one side, and some one sprang in upon us. I raised my revolver. Captain Hawson threw my arm upward as I fired, and the bullet went wild.

"It is one of Uncle Sam's men!" he cried.

"Where are you?" came the cry.

"Here!"

"Out, all of you! Be quick! The roof will fall in a few minutes!"

We sprang to our feet, and, with Ruth

in the midst of us, staggered to the door. The smoke was not so thick that the marines could not cheer when they saw us. And then we began our battle to reach the temple entrance.

There were fanatics still in the room, firing wildly at the sailors and at each other in the smoke. Before we realized it, we were hemmed in by marines, and a midshipman was issuing orders in a loud voice. We made our way slowly across the room.

I felt my head swimming, felt my lungs growing sore. The flames were all about us. Once I turned to find that Captain Hawson and Uncle Dick were carrying Ruth between them.

"On—on!" the midshipman was shouting. "We are almost there!"

Another moment, and we had reached the entrance. We staggered down the steps into the midst of the sailors and marines who had remained in the open. As we reached the monument in the center of the square, there was a great crash behind us, a cloud of smoke and flame shot into the air, and the roof and walls of the temple fell, burying the great aitu in its sepulcher of ruins.

The fanatics who remained unscathed fled in terror into the jungle.

It was the work of only a few minutes to bring Ruth back to consciousness; and then we received the captain of the cruiser, who had come ashore when the heavy firing began. Captain Hawson told his story as quickly as possible.

"I have sent men to see about this man Welch," said the commander.

As he spoke, his men returned, and a midshipman stepped forward to make his report. Then his superior turned to us again.

"Welch has found a grave in the land he tried to despoil," he said.

Then we marched down the broad avenue to the shore. The cruiser lay at anchor a short distance out, white and buff shining brightly in the sunshine. Old Glory was fluttering in the breeze at the stern.

Half an hour later we were on the deck of the cruiser.

"What shall I do about your ship?" Captain Hawson was asked.

He faced the cruiser's commander bravely.

"Send a shell into her!" he said. "If I returned to another port, I would have explanations to make. And from this time on I lead an honest life, and I cannot do it on a dishonest ship."

The two captains clasped hands.

"It shall be as you wish," said the cruiser's commander.

We stood on the bridge while one of the great guns forward barked, and watched as the shell struck. There was a roar, a crash, and the Faraway sank.

Then the cruiser sailed from the tiny harbor and started back across the Pacific. The commander had promised to land us at Honolulu.

"When I make my report," he said, "I shall treat Captain Hawson with charity, inasmuch as both Mr. Engle and Miss Holland do not wish to prosecute him for his part in their abduction. He has won their regard by his bravery. But this boy, Roland Burke, must have a grievance against the captain, too. Of course, if Mr. Burke wants him prosecuted—"

I felt my chest expand when he called me mister, and Ruth's silvery laugh rang out. For answer, I stepped forward and took Captain Hawson by the hand.

"I guess that settles it," said the commander.

It was evening, and I was standing on the bridge, when Ruth and Uncle Dick came to me, hand in hand.

"We are going to be married, Roland," Ruth said. "We wanted to tell you first of all."

"I had almost guessed it," I replied, with wisdom beyond my years. "But there is one thing I'd like to know. What was it that made Uncle Dick dislike you so when first he met you?"

Her face clouded for a moment, but when Uncle Dick put his arms around her the smiles came to her lips again.

"He thought," she replied, "that I was in league with Welch."

"I do not understand," I said.

"He thought—or rather was made to believe—that I had conspired with Welch to steal the *aitu*, and that it was taken aboard the cruiser instead of the yacht by mistake. Your uncle respects all religions, and has no love for one who would despoil a temple.

"Then he was made to believe that I was really going to marry Welch, that I had been playing with his heart. We met in California, at a resort, a few days before I was abducted.

"That was when I left you alone in San Francisco for two days, Roland," my uncle explained.

"We had a quarrel there," she went on. "Your uncle wanted me to marry him, and I refused, because I knew the fanatics would seek us and try to carry us back to death. He thought I refused because of Welch. He went away angry; I was angry, too.

"When he saw me aboard the Faraway he thought I had told the fanatics where to find him; that I had betrayed him to his death; that I was seeking revenge and trying to help Welch at the same time. But it is all clear now."

"I think you were both very foolish," I exclaimed. "I thought all the time it was something really important."

"Roland! Roland!" cried Ruth, laughing in spite of herself. "It was important—very important—to your uncle and to me."

Uncle Dick kissed her fondly. The executive officer of the cruiser, who was on the bridge, looked the other way.

"On the bridge!" hailed Captain Hawson from below.

"Well, sir?" asked the executive officer.

"Kindly tell that pair of lovers up there that they both need rest, and that their cabins are prepared for them. There'll be plenty of time for spooning after they reach Honolulu."

"Aye, aye, sir!" laughed the executive officer.

"And tell that boy, Roland, to come down here to me immediately. I want to talk to him. He's got fighting-blood in his veins!"

Then we all laughed, and I went down and up to where the captain was sitting. There we sat and talked until my eyes would stay open no longer. Captain Hawson put one of his strong arms around me. I felt myself lifted tenderly and carried toward the cabin.

"It's been a terrible experience," I heard him mutter. "But it has made a man of him."

(The end.)

"BUT THERE WAS NOTHIN' DOIN'."



Old Dutch Cheese.

BY HAL WHITE.



THE TRUE STORY SERIES. Mistakes will happen—even in the best-regulated railroad yards—but seldom has a mistake been recorded that caused quite such a scare as this story relates. The Eagle Eye and his mate who swings the diamond spade must have had a double-distilled shock when she began leaking like a—well, read it, and just imagine what you would have done under similar circumstances.

Why Jim Daley and Bill Markley Hustled to a Convenient Spot Behind a Hill and Waited for the Explosion That Never Was Heard.

TRUE STORY, NUMBER FORTY-THREE.

“**T**HERE goes old Dutch Cheese.”

Thus Bill Markley spoke to me as we sat on a truck at the Kourtland depot one June evening, as one of the oldest engines of the road wheezed and spluttered by to pick up a train.

“Yep,” I replied.

“Did you ever hear how she come to be christened that name?”

“Nix,” says I.

“’Twas ’bout nineteen one or two,” he began, refilling his pipe and lighting up, “just after the Gee Grook branch of this here road was built. It run independent

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

then, and the company operatin' the same was broke a'most. The line was earnin' good money all right, but it was too heavy in debt.

The Only Engine.

"They only had one engine, with no name or number, ter do the freight and passenger bus'nness of the whole nineteen miles of road. I was firin' then, and our run was from the east end of the road at Cinnatus to the west end here. Nineteen miles and two round trips every day.

"The company had put up a big water-tank at Cinnatus, and then found out they was too poor ter buy power enough ter pump her full of water. They fin'ly fixed it with the milk-station people next to it to fill the tank from their wells by their big pumps.

"Our leavin' time fer the first trip out of Cinnatus was 8.02 A.M. About seven-forty-five, one June morning, Jim Daley, my engineer, backed the nameless power-plant to the tank, and I filled the tender to the brim.

"Everything was workin' right that mornin', until we got ter pullin' up the grade at Whytes Mills, when I discovered the steam was fallin' off. My fire was burnin' great, but I couldn't no ways seem ter make that steam-indicator show right.

"I turned on the blower, and there wasn't hardly enough power left ter blow the fire.

"Well, we struggled along until we got 'bout to East Freeville, when I heard Jim yell and seen him jam on the air, and then jump.

"We weren't runnin' fast enough ter do any particular damage by leavin' the track, and we sure did jump regular those days with that poor-ballasted road. I stepped to the side of the engine and looked fer Jim, but all I seen was his back, and that was fast fadin' inter the perspective.

"I stood there wonderin' what had hit Jim, when Al Kemp, our conductor,

comes runnin' up and wants ter know what's wrong. Says I: 'Jim's gone crazy. Jumped and run! There ain't nothin' the matter, only we can't seem fer keep up steam enough ter git anywheres.'

"I hadn't no more'n got the words out of my mouth afore I heard: 'Jump, Bill—jump! She's goin' to blow up!'

"Then, fer the first time, I seemed to hear a sizzlin' an' foamin' goin' on inside that engine which didn't sound right, and there was a white fluid just boilin' out all over her. It didn't take me long ter go after Jim, then, you bet, and the whole crew followed suit. We got over behind a hill and waited fer the explosion, but there was nothin' doin'.

"After about an hour we screwed up gumption enough to go back. Ev'rything was quiet, and no trouble seemed to exist about the engine 'cept she was coated over with some white stuff, and the sizzlin' had expired.

Just a Mistake.

"We sat round fer a spell tryin' ter make out the cause, but nobody seemed ter have any explanation. Fin'ly, Jim got up on the tender and lifted the tank cover. He stood lookin' in a minute, and then motions me up. I took one look and shut the cover down, remarkin' ter Jim: 'It won't do nobody no good ter say anything about that.'

"It wasn't until after the engine had been ter the shops that any of the crew learned what the real trouble was, but they did joke-us some after that about her stomach being full of Dutch cheese."

Bill sat back and puffed a while in silence. I gazed at him, wondering how the cheese got into the boiler. He, evidently reading my thought, continued:

"Yep, 'twas Dutch cheese, and one on me. You see, the milk-station people had pumped our water-tank full of sour milk by mistake, and I had filled the tender without noticing the mistake."

A semaphore-arm doesn't go up merely because somebody pulls a lever; it goes up because there is danger. There's a real reason for most things.—Cautions by the Boss.

DE BERGERAC OF THE BOES.

BY AUGUSTUS WITTFELD.

He and Monk Hastily Desert Their Auto When They
Get a Jack Binns from Geraldine and Her Mollycoddle.



FATE, having nothing else on hand, engineered another meeting between Monk and the individual with the watery eyes. After an interchange of courtesies, the individual with the watery weeps inquired: "Have you had any more of those remarkable adventures since I saw you last?"

"Have I?" queried Monk. "Why, I've had the time of my life. I've been hobnobbing with the Harriman of the highways. Doing stunts in an automobile with the only and original auto hobo of America."

"If you can relieve yourself without crossing the Rubicon of truth, I believe I can pose as a willing listener without resorting to anesthetics," commented the watery-eyed one.

"The last time we met," retorted Monk, "you cast aspersions on my veracity by inquiring whether Ananias did not grace the upper branches of my genealogical tree."

"I did," replied the watery-eyed one; "but with all due respect to Annernias."

"In that case," replied Monk, "I will overlook your seeming irrelevancy, and give you a leaf from the log of my adventures with this motor marauder. One afternoon I was doing the at-home stunt 'neath the shade of the old apple-tree, when a stranger hove in sight, wiped his feet on the 'Welcome' mat, and proceeded to ingratiate himself. I entertained him with a recital of one of my adventures, after which he announced his desire for sleep."

"Very natural," interrupted the weepy one.

Ignoring the remark, Monk continued:

"He requested me to awaken him should an auto bearing his crest put in appearance, and was soon pounding his auricular appendage on the herbaceous hummock, while I listened to the sighing of the wind in the branches and mused on the mutability of things in general. Lazily I watched the passing autos, and envied the favored sons of the ennui class who are handicapped by the burden of wealth and the responsibilities of rank. There's nobody to flash a red at them and chase them along a siding until the perishable produce goes by.

"There's nobody to worry them except the bucolic burgomaster who penalizes them seven-fifty for flirting with the undertaker on the only decent mile of road within the burg.

"As I lolled and dreamed, a machine came along, traveling slowly. As it drew near I noted that it contained but a single occupant, evidently the chauffeur, who appeared to be on the lookout for some one. I arose and sauntered leisurely forward.

"The only occupant asked me whether I had seen an individual meandering around who looked like an imitation of Richard Mansfield.

"I asked him for specifications as to the character in the great actor's repertory the meandering Mansfield assumed. He replied that he was not long on histrionic characterization, but he thought it was Markham's 'The Man With the Nose.'

"I associated his meager description with the personality of my guest, and informed the proud pleasure-pilot that the great Cyrano was doing the by-by act 'neath the pippin-tree. He asked me to awaken the Rostrand replica and inform him that his auto had arrived.

" 'Say, sport,' I answered, 'desist your dippy discourse. Whoever heard of a weary wayfarer along Handout Highway possessing an automobile?'

"The chipper chauffeur did not deign to reply, but strode over to the slumberer and shook him. De Bergerac awoke and cast his optics over the moving-picture show. Then he indulged in a *conversazione* with the haughty-autoist, who finally handed him some bills and took his departure.

"I watched him hoofing it down the pike, and wondered what I was up against. Then I approached the guest of honor, and, by judicious questioning, I elicited the information that the auto belonged to him.

"Say, pard, I've heard of pan-handlers pushing toward the Stygian darkness on proud plugs, but that was the first time I'd been up against the auto-hobo combination. Just imagine an intelligent itinerant mastering the mysteries of mechanics or getting up energy sufficient to turn the hurdy-gurdy crank of an auto so as to get a tune out of the engine.

"I expressed my doubts as to his ability to run the auto, but he assured me that he was an expert. Said he was a meandering mechanic—an M.D. of the autopathic school—and made real money doctoring the afflicted autos of the rich. Then he asked me to take a ride, and when I put up the bluff that, like the ballet-dancer, I'd nothing to wear, he dug down into the hamper and produced a couple of auto rigs, which we put on. Then he started the engine, and we climbed in. Say, sport, did you ever take your affinity to one of those gladsome groves where every one indulges in the abandon of amusement?" questioned Monk.

"Do I look like one who would lure a lady to a lunny park?" resented the watery-eyed one.

"Well, there's no use negotiating the altitudes," retorted Monk. "I meant nothing impersonal. If you've never been to any of the hilarious haunts, you do not know the fascination of shooting the chutes or gliding over the undulating surface of the scenic railway like a streak of greased cosmoline. If you've never leaped along the level ways, or climbed the incline like a ricket—if you've never shot down the declivities like an Alpine

avalanche bent on a mission of obliteration—you cannot appreciate the sensation I experienced on my first automobile ride.

"I abandoned myself to the novelty of the situation, and thought of the many times I had traveled in a more primitive way. Brake-beams and empty freights are all right, but the auto is the aristocrat of conveyances.

"De Bergerac certainly knew how to handle that car, and he kept her going until near dusk. We put up for the night at a farmhouse, where it happened that the host was an enthusiastic autoist, and De Bergerac so won him over by letting him talk about his machine that he forgot to make any charge for our entertainment.

"We made an early start, after an appetizing breakfast, and De Bergerac said we would take a run up to Lake Nocopo, a swell summer resort. I saw more scenery on that trip than you could see in a week traveling in the old-fashioned way. We finally reached the lake, and had our first view of the classy resort from the lower end. Around the hotel, which we could barely discern in the distance, there did not seem to be much evidence of life, the guests evidently being at breakfast.

"De Bergerac brought his machine to a stop, that we might enjoy the witchery of the scene. Coming across the water toward us was a canoe, containing a young man and a young woman. The feminine end of the combination was furnishing the motive power, while the Cholli-boy seemed to be content with looking picturesque and puny.

"On they came, gliding over the water, when suddenly that mollycoddle masculine made a fool move and upset the birch bateau. The girl came up first, and, grabbing the struggling shrimp by the back of the neck, she swam with him to the overturned craft.

"The physical-culture girl seemed to be handicapped by the swimless swain, and made no effort to right the canoe.

"De Bergerac, realizing her predicament, remarked that it was evidently up to us to do the heroic-rescue act.

"How do you propose to capture the Carnegie-compensation?" I inquired.

"De Bergerac thought for a moment, then he jumped from the car and got busy detaching the tire from one of the wheels.

"Say," I protested, "those capsized canoists are doing a Jack Binns. Don't you think you'd better let your repairs wait until we have rescued them."

"That's all right," he answered, as he sprung the tire from the wheel. "Here, get busy and pump this up tight."

"I got onto the job, wondering whether the harrowing scene had affected his mentality. As I finished, he sprung another tire from its wheel and proceeded to inflate it thoroughly. Then he picked up the tire and made for the lake, bidding me to do likewise. When he reached the water, he jumped in, and I realized then that we were rushing to the rescue with improvised life-preservers."

"I followed De Bergerac into the chilly water. I'm no woolly water-spaniel, and I don't fancy scorching over the water on a personally conducted automobile tire. After about ten minutes' hard work, we reached the distressed damsel and her companion, and De Bergerac instructed them as to the method of putting a life-preserver on straight."

"When the pocket-edition of masculinity had gotten himself comfortably ensconced in his life-preserver, he fumbled in his coat-pocket and pulled out his card-case. With difficulty he opened it and took out a damp card. He handed it to De Bergerac, saying:

"I feel that the conventionalities should be observed before we proceed further. Permit me to introduce myself."

"De Bergerac glanced at the card, and said:

"Mr. de Trop, I am pleased to meet you. Unfortunately, I have left my card-case in my auto. I am known as C. de Bergerac. This is M. Hausen."

"The drawing-room hero acknowledged the introduction with a porpoiselike bow, muttering, 'Chawmed.'"

"Miss Geraldine," he said, turning to the girl, "allow me to present Messieurs de Bergerac and Hausen. Gentlemen, Miss Geraldine Pendelton."

"Say, sport," commented Monk, "I've been up against social etiquette in all quarters of the earth, but blow me if that wasn't the first time I'd participated in a deep-sea drawing-room function."

"After the formalities had been observed, De Bergerac approached the fair maiden and said:

"Miss Pendelton, may I have the honor of saving your life?"

"Fair Geraldine smiled her assent, and De Bergerac righted the canoe. Then, while I steadied it, he assisted her to re-embark. Then he climbed in, and asked me to pass him the paddle, which was floating a short distance away. I secured it for him, and he directed me to lash the two life-preservers together. I did so, and he made them fast to the canoe."

"I say, De Bergerac," remarked the De Trop party, "going to leave me here?"

"As there does not seem to be any chloroform in the purser's cabin," replied De Bergerac, "I think we had better proceed as we are."

"De Trop attempted to remonstrate, but De Bergerac swung the paddle, and we started on our triumphal journey to safety. The girl looked happy but humid, De Bergerac looked heroic and hopeful, while your humble servant and the too-much individual looked like a couple of inanimate automatons stuck in crullers."

"We proceeded shoreward, guided by the skilful strokes of the versatile volunteer, and eventually landed. De Bergerac quickly replaced the tires, and, bundling the rescued resorters into the auto, drove swiftly to the hotel."

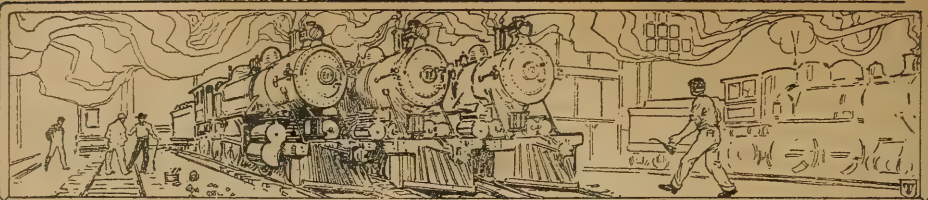
"When the guests heard of the heroic rescue, they lionized that Carnegie hero."

"I suppose," ventured the individual with the watery eyes, "that your friend with the histrionic handle married the water-nymph and lived happy ever afterward?"

"No," replied Monk, "fiction may flourish, but truth will prevail. As a chronicler of facts, I have no other recourse than to announce the union of the house of Pendelton with that of De Trop, though what she could see in that scion of immobility surpasses understanding."

"What became of the chauffeur with the courtly name?" asked the individual with the lacrimose lamps.

"The auto hobo is no more," replied Monk. "He has forsaken the open road for the closed shop of servility. He is now chauffeur-in-chief to the house of De Trop. I was offered the position of butler in the same institution, but as I know nothing about butling, I declined. If you can spare me a match, I'll light up and say good-by. *Merci bocoo.*"



THE MAN FOR ME.

BY LESLIE CURTIS.

Written for "The Railroad Man's Magazine."

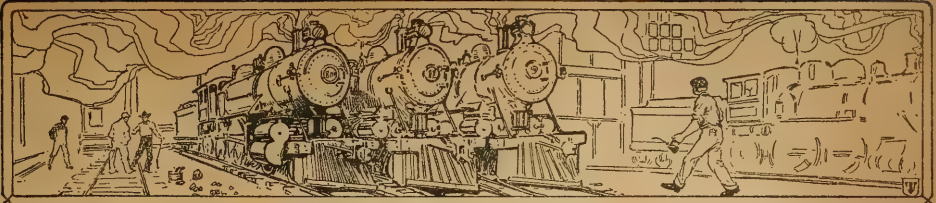


MAY be only a chorus girl, but I know a thing or two.
If you've got a moment to while away, I'll put you wise to a few.
Seems strange for me to be resting here, with never a thought of
care,
When I ought to be with "The Moonlight Maids," swingin' my
feet in the air!

I've traveled all over this blessed land—know every burg on the map;
And you can take it from me, straight-dope, it isn't much of a snap.
It's the loneliest life in all the world, forever and ever to roam,
Especially so for a girl like me, who's crazy to have a home.

Say, that's phony dope about millionaires hanging around the stage;
Those guys ain't lookin' for song-birds to put in a legal cage.
They want the girl with the champagne taste—the one who can kick so
high—
But the decent girl with the shabby dress! Why, she gets the icy eye!

That's a great old joke about virtue being its own reward—
And whenever a well-meaning dub says that, I laugh and swallow hard.
Sounds funny when I've starved and froze, because I was on the square—
So me for a large-sized, healthy hunch that the world ain't playing fair.



One morning out in Lonesome Tank, while waiting for a train,
We were tired and cold and hungry, drenched with a driving rain.
When it came at last—two hours late—and I ran out to see—
A kindly face in the engine-cab looked down and smiled at me.

The cars were full, but I found a seat and managed to sleep a while;
And into my dream came the kindly face and the sympathetic smile.
Then all at once a crash—a pain—and scream that followed scream!
I tried to wake—I couldn't move—I thought I was in a dream!

At length I came from that awful sleep in the arms of the engineer;
He'd pulled me out of the wreck, they said, and then he sent me here.
He never asked any questions; but one day, as he stroked my hand—
I told him the whole of my miserable life, for I knew he'd understand.

Say, you can have all the millionaires, but I'll take Bill Jerome;
For, while I'm lying dreaming here, he's fixing up a home.
It's never again to pike around, to starve and fear the cold—
For under his greasy working clothes there beats a heart of gold.

It's nix on the guy that owns the road, or the son of a millionaire;
They hand out bottles of Hell's First Aid and bunches of stale hot air.
But the man who is used to the world's hard knocks is the one to bless a home;
And when I get well, it's a lead-pipe cinch, I'll bet on Bill Jerome!



The Evolution of "Almost."

BY HORACE HERR.

2.—HE IS PRESENTED WITH ANOTHER MEDAL.

A Trestle Over a Crack in Arizona Catches Fire, and "Almost" Proves That He is Made of Real Hero Stuff When He Rescues Jimmy Bailey.

HAVING nothing much to do but wait for pay-day and maintain the dignity necessary to a "general foreman" at Hulbrook, I found quite a chunk of time in which I could drop grains of wisdom in Almost's vicinity. It was a revelation how near human he was.

In less than a week after I made him chief clerk he could dump a grate and pull a fire as artistically as any tallow-pot on the pike. He even knew the injector from the air-valve, and got over looking at the steam-gage to see what time it was.

In another month he knew every part on that engine by its first name, and

every engineer and scoop-pusher in helper service began to take notice of him and help him along.

Of course, some of them took liberties at times, especially "Smoke" Kelley. "Smoke" liked to have his little fun every semioccasionally and Almost put in quite a bunch of time hunting left-handed bell-ropes, and on one occasion put in half a day polishing the bell to improve its tone.

But when "Smoke" liked you he showed it by every sort of a practical joke, and as he was always showing the boy little things about the engine he added his share to the general educational donation.

There were times when Almost ap-

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peared hopeless. He insisted on letting an empty coal-car down from the coal-chute, and as a result he built a little church out of a flat car which was standing in on the coal-chute track about fifty yards away.

Almost didn't stop at the same time the gondola did. He knocked two boards off the sand fence which stood a good twenty feet from the siding. Outside of that he was all right, and insisted that he "almost had it stopped when it hit."

There was one great thing about Almost, when he started something he always hung around for the finish. Of course, it was up to the general foreman and the chief clerk to make the needed repairs on the gondola and the flat, so Almost had a chance to take a lesson or so in box-car physiology.

Knowing, as I did, that digging clinkers from a grate, polishing wheels, and banking fires, with putting in a brass now and then as an extra amusement, wasn't exactly conducive to intellectual progress, I was rather surprised that Almost began to show signs of "book l'arnin'."

Caught with the Goods.

He was mighty careful to hide the traces, but I caught him with the goods one day, under the engine in the pit, with the time-table spread out on his oily knees, and he was spelling out the names of the stations along the pike. He had the letters down fairly well, but what he called some of those towns would have made them pretty sore if they had heard it.

It wasn't more than a month after that that Almost came into the box-car office one afternoon about four o'clock and handed me the list of cars, initials, car numbers and all, the regular report I had to send into the terminal office every night. I looked it over and you could really read the thing.

Of course, I didn't want to embarrass the boy, so I just thanked him as if he was in the habit of doing it every day. From that day on he did, which left me nothing to do but let my salary accumulate, and look out for Almost.

Finally Maggie Mahorney informed me that Almost was taking a daily newspaper from Albuquerque. She said it in such

a way that I knew without guessing twice where Almost was attending night school.

Less Title; More Money.

Of course, it was bound to come. I couldn't stand the climate very long. After six months as general foreman I decided that I would take less title and more money.

About the only thing to break the silence at Hulbrook was the sound of Jed Latroupe's wooden leg pecking along the ties as he came to the station every morning to spring an old joke of his about it 'bein' awferl dry this year,' and the rumble of the trains as they passed by. I wasn't cut out for the simple life anyhow, not for long at one time.

I wanted to get over into the train service, as I had had a little taste of that in years past and liked it pretty well, better than feeding coal to a double-doored hog, or pulling a throttle at the head of a long string of empties or full tonnage of loads.

It looked as if the T. M. would never stop off at Hulbrook, and when he did come the little entertainment kept us



"HE HAD JIMMY BAILEY'S BODY."

so busy that I forgot about hitting him for a job.

It was along in the afternoon, when every one in Hulbrook took their "shut-eye." An extra stock-train pulled up at the station for orders against the passenger-train, and J. K.—we all called the trainmaster J. K. when we didn't call him something else—dropped off the caboose and wandered up to the station.

An Air of Industry.

Jed Latroupe was whittling on his wooden leg, and I saw the old man coming, so I got busy making out a bogus report. An air of industry around a station carries a lot of weight with an official.

The stock-train pulled out, and J. K. remained to take up a few little matters of business, including an investigation of the accident at the coal-chute when Almost went coasting in the empty gondola. I told J. K. just how it was, and he told Almost just how it was, and assessed fifteen brownies against his personal record. As fifteen brownies didn't decrease his pay a bit, Almost stood for it, and went back to his stall in Jed Latroupe's livery-stable to change his clothes—for Almost had two suits now, one suit of overalls, and another of hand-me-downs from Albuquerque, which he insisted on wearing every Sunday whether we had company or not.

The Cry of "Fire!"

About fifteen minutes later, Almost came rushing into the box car puffing like an engine on a heavy grade.

"Somethin's on fire over yonder," he exclaimed.

And of course, realizing that a fire in a place where water don't grow is a mighty serious thing, J. K. and I did a handicap free-for-all for the door. It was a dead heat and we jammed.

When we finally got out on the platform, a couple of miles down the track and around a curve, we could see a big bank of grayish smoke rolling up. It looked as if it might be the bridge over the Little Colorado, but Almost 'lowed as how the only thing on the bridge that could burn was the ties, and that there was too much smoke for that.

J. K. suggested that we advise the terminal office, and Almost again 'lowed as how about the only thing down that way what would burn was that stock-train which had pulled out about twenty minutes before.

"Then we'll order the wrecker from Winslow," remarked the trainmaster and began to write out a message using the side of the box-car station as a desk.

But Almost had not been watching the red ball freight and the varnished wagons roll by, day after day, longing to be out on top of the string swinging a high ball, or wishing that he was the man on the rear platform with the blue uniform and the brass buttons, to let such an opportunity as this pass by without making an effort to land.

Getting in Line.

He couples into the trainmaster with the suggestion that the wrecker would be a long time getting over from Winslow, and there was a pusher engine down on the pit track, an old derrick on the spur, and two full water-cars near the coal-chute. It would only be a matter of switching them out and hitting the grit, to get over there.

If the fire was nothing to mention, then there was no harm done. If it was a wreck, and a string burning up, then, after all, haste was the first demand.

J. K. fell for it. Almost put himself in motion toward Jed Latroupe's livery-barn, where the helper crew had just turned in for a little shut-eye.

In five minutes they were down on the engine, which still had a fair head of steam, and then with me in the rôle of engine boss, with J. K. and Almost working the field, we switched out the cars we wanted. Then we went it wild for the cloud of smoke, leaving word with the station-agent to hold the board on everything until we got back.

At the Scene.

"Smoke" Kelley had the throttle on that old teapot, and according to Almost "he shore did crack the whip with them four cars."

The closer we got to the smoke the surer we were that it wasn't a barbecue

or an Old Settlers' picnic, and when we came around the Aztec curve, "Smoke" threw the big hole into them and even then we only stopped a few inches back of the dog-house.

Of course, the first move we made was to see how many of the crew was in sight. "Humpy" Jamison, with one side of his face hanging in ribbons, came running back toward us, as we hastened ahead. It wasn't the Little Colorado bridge that had burned out, but it was a wooden trestle over one of those cracks in the ground which you find all over Arizona.

Some of them you can jump across, but they will be as much as fifty feet deep. This one was about eighteen feet across and forty deep.

Jamison went the air route, and landed on his face on the other side of the cañon. His fireman beat it to the brush before they went in, and was all to the good, but the head shack didn't clear the wreckage, and was pinned under a car.

They had got him free of the wreckage and had him lying back on the desert. The rear brakeman was all to the good, except that when Jamison threw the air into them, the brakeman tried to butt the front end of the cupola away, and really did a good job of it too—laying his head open for a few inches or more.

But they were all alive and kicking except the captain of the ship, Jimmy Bailey. He was missing. The rear shack said that the last he saw of him he was coming over the string toward the dog-house, about midway of the train.

No, I don't care for any more mutton. Not since that day, and every time I hear the ba-ba it gives me a spell of chills. Five cars of mutton went into that ditch with the engine, and they took fire, three more cars turned over and two others were derailed, and if a human being can produce a more agonizing cry than some of those sheep did—well, just count me out.



OUTSIDE OF THAT, HE WAS ALL RIGHT.

But then that has nothing to do with the 1178 report. Just about as fast as men ever worked, Kelley drifted into the rear of the string, coupled onto the caboose, and we cut the string off behind the cars that were derailed and pulled all those that were on the track back about a mile.

In the meantime, a terrier digging after a rat could not have been more busy than Almost. He had grabbed an ax, and the way he was making holes in those stock-cars, and the way the sheep were coming through those holes—well, it was really good to see, except that the fire kept coming back toward him and he kept working closer to the fire.

He Was Heat-Proof.

I suppose living in Arizona most all his life made him heat-proof, for I know I tried to get in and help him a little and couldn't stand it. If some one suc-

ceeds in convincing me that Hades is just half as hot as that place was, I'm going to be an awful good boy all my life.

Heroism is all right in its place, but I never could see the virtue of risking your one life, er—for sheep, say—so I began to yell at Almost to climb out of it. J. K. came running over and helped me cuss the idiot.

Then Jamison came up, and the rear shack would have been there too, if we hadn't sent him over to see how the other brakeman was making it out there under the shade of a cactus. Almost didn't even look up.

He was chopping away like a man gone wild. I was sure that he had suddenly lost what little sense he had; in fact, I was ready to admit right there that he had had none to begin with.

His hat was gone, his brick-colored hair was singed, you could see the blisters raising on his face, the fire was leaping about him, the inhuman screaming of the sheep penned in the burning cars, wreckage and blood every place, and him standing there like a fool boy on the burning deck eating peanuts.

Then I started up after him, but it wasn't any use. Now, I don't claim to be the real hero, but no one ever accused me of having yellow stripes along my spine.

Almost Is Busy.

I've helped pick them up in baskets and off of boiler-heads. I've faced the big works a couple of times myself and didn't let out a whimper, but to see Almost up there, cutting kindling wood with an ax, while he was literally burning alive! Well, I guess there were a couple of other fellows who said: "Now I lay me down to sleep," and wasn't ashamed of it either.

He seemed to be cutting a little hole in between two cars which had telescoped. We finally couldn't see him more than half the time for the smoke and the fire.

Finally he stepped down into the hole he had cut. I saw him grab a brake-rod and bend it back out of his way and the thing was so hot you could see the smoke from his burned hands when he took hold of it.

Once down in the hole to his waist, he shoved aside a board and bent over

a little, and twice more he swung that ax, dropped it, bent over, and when he straightened up, his clothes burst into flame, and—so help me! he had Jimmy Bailey's body in his arms.

A Fast Ride.

He climbed out of that mess, staggered from one piece of wreckage to another, and fell his length in our direction.

Jamison, J. K., and myself reached them in a jump. Jamison grabbed Bailey's body and dragged it out to the side of the track, while J. K. and I beat the fire which was eating the boy's clothes. Bailey's left arm told the story.

It had been pinned in the wreckage so that it was held fast, and the only way that Almost could get him free was to cut it off. Those last two blows had done the work.

Conductor Bailey still has one arm and a mighty good body, which he says he owes to Almost, but just how completely he owes it to Almost no one knows any better than I do.

I've ridden a few fast ones in my time. There was the time Skinny Farris took me from Torreon to Jimulco, there was the time Paxton rolled me down the big divide when we expected the crown-sheet to drop every minute, but I never rode quite as fast as "Smoke" Kelley pulled us that evening in the dusk from the wreck to the terminal and the nearest surgeon.

That night Bailey and Almost occupied neighboring cots in the hospital-ward and it looked for a time as if neither one of them was going to have much use for ozone before long. Almost came out of it first.

In the Hospital.

The trainmaster was there, so was the doctor, and they let me hang around, seeing as how I got hostile when they tried to put me out. Almost came to his senses, and raised a bandaged arm to a more bandaged head and asked, "Where am I at?"

"You're in the hospital, young man, and you want to keep real quiet for a time. We'll take those bandages off your eyes the first thing in the morning."

Then the details must have come back to him. He let out a sickening groan, the kind a fellow gives up when he lays down to die and knows he's been a big failure.

"Oh, yes," he says, "I almost got him."

and Jed once I told it four hundred and eighty-seven times, but before I started in on them I hunted up Maggie Mahorney, and while we sat in her little 'dobe room I told her the story, and Almost didn't lose anything on account of me being his John Alden either.



"I ALMOST GOT HIM."

"Almost got him?" chuckled J. K. in the boy's ear, or right near where his ear ought to be. "Almost what?—you sure got him, boy. He's here in the hospital with you."

"That'll help a little," replied Almost, and a few minutes later he drifted off into a troubled sleep.

Whittled in Two.

They both got well. Of course, the next day I had to hurry back to Hulbrook, for the general foreman and the chief clerk couldn't be away at the same time, and when I got back there I found the town all but gone to the bad.

The post-office had been closed ever since the news became known. Jed Lattoupe had whittled on his wooden leg until he whittled it plumb in two.

If I told that story to the station-agent

Of course, the story got out among the boys. You might hide a candle under a basket but it won't cover a burning train. And when they got wise to the real dope, there was nothing to it but a medal for Almost.

I wondered what he would do with a medal in Hulbrook where there was no one to see it, but the boys thought that was the thing to do, and as they didn't consult me they went ahead and did it. They sent to Albuquerque and had a sure enough gold medal, with a blue ribbon on it and a nice epitaph inscribed.

On a Strike.

Maybe it wasn't an epitaph, but it was something of that kind. In the meantime I got hold of the trainmaster, told him that every night I thought I heard sheep howling down at Hulbrook and my

nervous system wouldn't stand the strain, and suggested that I quit and that he use his influence to get Almost the job as general foreman.

He said he would do it. I quit and they sent another man down there to fill in until Almost grew a new crop of skin.

Well, there was a tangle in the red tape some place, and before they got around to making Almost general foreman he went out on a strike. When he went back to work as chief clerk and ex-officio guardian of Uncle Sam's post-office, the boys sent a delegation down to present the gold trimmin's.

The very next day he came into the terminal, hunted me up, and I was advised of the wherefore and why of the strike at Hulbrook. Taking Almost's own words it was after this fashion:

"Now, Mr. Thomas, I don't mind cleanin' ash-pans, and diggin' out clink-

ers fer your railroad, an' tryin' ter earn them forty-five pesos every month, but I'll be durned if I'm-going ter trot around that town a 'wearin' a breastpin like this," and he produced the medal.

I talked it over with Almost, and it seems as if he really wanted a badge, but he wanted a stinger's badge—he wanted to be a real shack. He wanted the privilege of eating cinders on the smoky end, chewing sand on the desert, and digging for switches in four feet of snow.

That's all the reward he wanted, and he did want that powerfully bad. I suggested that perhaps Maggie Mahorney would like to have the breastpin, and I guaranteed to get him the brakeman's badge, a switch-key, and a lantern, for I knew how the trainmaster felt about the ungainly chief clerk at Hulbrook, and as this proved almost satisfactory to all concerned the strike was declared settled.

In the final instalment of the story of "Almost," next month, Mr. Herr tells how he earned the right to sign orders.

SIGNAL-SERVICE.

(Read the foot-notes for the last line of each verse.)

TIME-table! Terrible and hard
To figure! At some station
lonely
We see this sign upon the card:

*

We read thee wrong; the untrained eye
Does not see always with precision.
The train we thought to travel by

†

Again, undaunted, we look at
The hieroglyphs, and as a rule a
Small double dagger shows us that

‡

And when we take a certain line
On Tues., Wednes., Thurs., Fri.,
Sat., or Monday,
We're certain to detect the sign:

§

* Train 20: Stops on signal only.

† Runs only on Northwest Division.

‡ Train does not stop at Ashtabula.

§ \$10 extra fare excepting Sunday.

Heck Junction—Here she comes! Fft!
Whiz!

A scurry—and the train has flitted!
Again we look. We find it—viz.:

Through hieroglyphic seas we wade—
Print it so cold and so unfeeling.
The train we wait at Neverglade

¶

Now hungrily the sheet we scan,
Grimy with travel, thirsty, weary,
And then—nothing is sadder than

||

Yet, cursed as is every sign,
The cussedest that we can quote is
This treacherous and deadly line

**

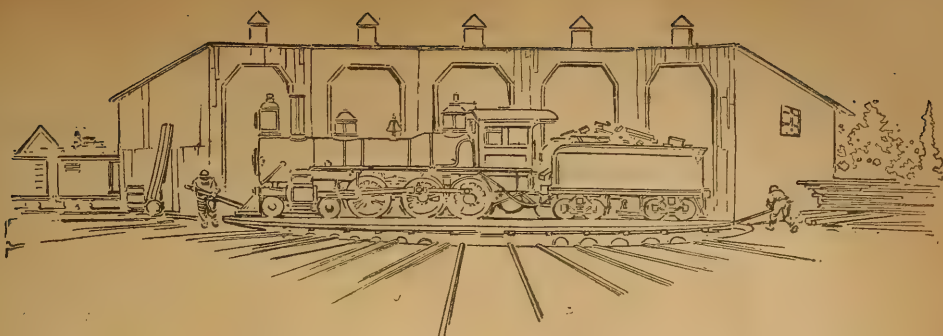
¶ Trains does not stop where time omitted.

¶ Connects with C. and T. at Wheeling.

|| No diner on till after Erie.

** Subject to change without our notice.

—FRANKLIN P. ADAMS, in *Everybody's Magazine*.



Recent Railroad Patents.

BY FORREST G. SMITH.

It Is Apparently Such Little Things as These That Have Made the
Railroads of the United States and Canada
the Wonders of Industry.

EQUAL BRAKE-PRESSURE.—

One of the greatest difficulties experienced in the operation of trains, and particularly freight-trains, is the equalization of the brake-pressure on the wheels. In order to simultaneously apply the brakes to the wheels of every car of the train, it is customary to maintain an air-pressure of about twenty pounds to the square inch throughout the entire brake system, and when the brakes are operated this pressure is exerted equally against the wheels of empty cars as well as against the wheels of heavily loaded cars, which vary greatly in weight, according to the character of the load carried.

This pressure, applied to the wheels of an unloaded car, will stop the wheels entirely, and cause them to skid on the rails. It will not only wear flat places on the wheels, but will cause the cars of the train to bump against each other, which is very damaging to the draft-rigging, as well as to the body-structure of the cars.

To overcome this disadvantage of the ordinary brake-systems, Frank D. Thomason, of Chicago, has patented, No. 944,058, December 31, 1909, a brake-equalizing mechanism, which is so constructed that the weight of each car of a train will result in the wheels of its trucks being moved toward their respective brake-shoes a distance or degree proportionate to the weight of the car.

As a result, the wheels of a heavily loaded car will be nearer their respective brake-shoes than the wheels of an "empty," and as the pressure exerted by the brake-shoes increases in ratio to the approach of the wheels to the shoes, greater braking pressure will be applied to the wheels of the heavily loaded cars than to the wheels of the "empties," securing the above-mentioned result.



AIR-BRAKE RELEASE.—

When the brake mechanism of any car of a train becomes inoperative, the train is stopped and one of the trainmen must crawl beneath the car and cut out the brakes of that particular car. This method results in the loss of considerable time, to say nothing of the danger involved.

To obviate this disadvantage, Simon P. Cota, of Dickinson, North Dakota, has patented, No. 943,769, December 21, 1909, a release for air-brake apparatus, which may be operated from within the car to which it is applied.

The device is embodied in a valve which is interposed in a branch pipe leading from the train-pipe to the brake-cylinder, and the stem of this valve projects up through the floor of the car a short distance, so that it may be opened or closed from within the car.

As the valve-stem is turned to close the valve, an exhaust valve for the auxiliary cylinder is opened at the same time, so as to relieve this cylinder of pressure.

CONTROL FOR STREET CARS.

—A novel brake-control system for "pay-as-you-enter" cars is shown in a patent, No. 945,964, January 11, 1910, issued to Frederick H. Lincoln, of Philadelphia. As it is customary in this class of cars to keep the doors closed when the car is in motion, and only open them to allow passengers to enter or leave the car, this system will prevent numerous accidents which might otherwise occur.

Motormen on such cars have acquired the habit of first starting their car and then closing the door, and it not infrequently happens that just at this moment a person will attempt to either leave or board the car, forgetting that no foothold is afforded when the door is closed or partly closed. Conductors on such cars, due, we must say, to the necessity of taking on and discharging passengers as rapidly as possible, have become careless in guarding the exit doors so that persons may leave by these doors while the car is in motion.

The system of control devised by Mr. Lincoln, while electrical in its nature, is very simple, and renders it absolutely impossible for the motorman to start his car while any of the doors are open. As there are exceptions to all rules, however, a switch is provided which may be thrown, in case of emergency, to permit of the car being started while the doors are open.

EASY SWITCHING.

—A decidedly advantageous switch construction is shown in a patent, No. 946,391, January 11, 1910, issued to Archie K. Murray, of Johnstown, Pennsylvania. It has been adopted by one of the largest switch manufacturing companies in this country.

As is well known, right and left hand switches differ materially in construction, the parts in one arranged the reverse to the parts in the other. Consequently, two sets of castings must be made.

In the switch disclosed in this patent, however, this is obviated, and a single casting of each part is all that is necessary to construct either a right or a left hand switch. In this switch construction, the switch-rod carries a member which may be reversed, and the spring for normally holding the switch in one position or the other may be disposed between this member and one wall

of the casing for the switch, in order to adapt it to a right or left hand curve, as the case may be.

It can be disposed between the said member and a bracket upon another wall of the casing to obtain the opposite result.

CREEPING RAILS.

—Devices for preventing the creeping of railroad rails have usually been embodied in clamps or plates similar to the ordinary tie-plate, but such devices are generally too expensive for extensive use.

One of the simplest means yet devised for this purpose is shown in a patent, No. 946,411, January 11, 1910, issued to Edward T. Trainer, of Portsmouth, Ohio. Mr. Trainer forms in the base-flanges of the ordinary rail, at the proper points, openings for the passage of spikes of the ordinary construction, and through these openings are driven extra spikes, which serve to hold the rails in fixed relation to the ties upon which they are supported.

The ordinary spikes are also, preferably, employed, although their use is not absolutely necessary.

SMALLER TUBES.

—Now that subways are coming into general use, improvements are being made which tend to cut down the initial expense of the construction of the way itself.

To lessen the height of the tunnel on even a short road, would mean an enormous saving. Antoine B. du Pont, of Cleveland, Ohio, has managed to accomplish this result without a counter-expense. It is true that he contemplates a change in the construction of the cars used on such lines, but the change does not mean an increase in the cost of manufacture of the cars.

The car devised by Mr. du Pont is of the ordinary construction, except that the trucks are located beyond the ends of the car instead of beneath the car, as is customary. In other words, the car-body is supported near the ground between two trucks located one at each end of the body, and, as a result, the height of the car is reduced to a degree equal to the height of the trucks usually employed.

CAR-TRUCK FRAME.

—A radical departure in the construction of car-trucks is disclosed in a patent, No. 944,820, December 28, 1909, issued to Theodore W. Remmers, of St. Louis. In this truck, the connection between the journal-boxes at each side of the truck is in the form of a

frame above which the bolsters of the truck are positioned. On the journal-boxes are formed guides, in which the ends of the bolsters are guided.

Springs are arranged between the bolsters and the frame connecting the journal-boxes, and serve to support the bolsters in the usual manner. As a result of this arrangement, the bolsters are prevented from moving in a direction lengthwise of the car, and are guided in their up-and-down movement, due to the yield of the springs, in a true vertical direction.



SWITCH PIVOT.—In a switch-point pivot, the principal wear is at the pivot and on the under side of the switch-point or tongue. Heretofore, it has been difficult to take up this wear, except by tightening the pivot, which, as a matter of fact, only compensates for the wear of the under side of the tongue.

A switch-manufacturing company has adopted a patent, No. 946,349, January 11, 1910, issued to Heenan S. Goughnour, of Johnstown, Pennsylvania, which covers a switch construction in which the wear of both of these parts is automatically taken up.

In this switch there is a tapered projection on the floor of the switch, which fits into a similarly formed recess in the butt end of the switch-tongue, but this recess is of a depth greater than the height of the projection, so that, as the pivot wears, the tongue settles and the wear is taken up.

It will be understood, of course, that the projection and the recess in which it is received affords the pivot for the tongue.

ANSWERS TO PATENT PROBLEMS.

Every reader who has a problem relating to patents is welcome to the services of this department, and a letter addressed to Mr. Forrest G. Smith, or to the editor, will receive attention as early as possible.

F. R. S., Cleveland, Ohio—(1) How should an inventor proceed in disposing of his patent on a railroad device?

(2.) Is it advisable to place a patent for sale with a patent selling agency?

(1.) The best method is to have some company place the device in use on a short line

of their way and test it thoroughly. If it does the work better than present devices and is not too expensive, you will find no trouble in disposing of the rights. If this method proves too costly, a small *working* model placed with a large railway company will probably do the work equally as well.

(2.) There are numerous agencies of this character now in existence, and many to the sorrow of the inventor. The usual scheme is to collect a certain sum for advertising, which may or may not be given, depending upon the reliability of the concern. In any event, the chief motive is to get the money for either newspaper or correspondence advertising, neither of which are of any avail to the inventor of railway appliances. The method mentioned above, with a few exceptions, is the best and only reliable one to follow.



H. R. R.—Is it advisable for a patentee in this country to apply for patents in all foreign countries?

No. The general rule in such matters is to apply only in the countries in which the device is liable to be in actual demand. Furthermore, devices which would be useful in railroading in this country would be worthless, as a rule, in other countries. Of course, there are exceptions, but they are few, and definite advice can only be given regarding specific questions in this line.



S. B.—The Patent Office procedure is as follows: Applications for a patent must be made in writing to the Commissioner of Patents. The applicant must also file in the Patent Office a written description of the invention or discovery, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he must explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions, and particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim must be signed by the inventor and attested by two witnesses.

Sum men wil sleep w'en Gaybreel blows his wissel; tho' the boss
ses I aint no aingel.—The Call Boy's Complaints.

STUNG! BY HECK!

BY EMMET F. HARTE.

Bub Spivens Sold the Farm to Nate Fisher and Deftly Settled an Old Grudge.



“HERE ain’t no gettin’ round it,” remarked Smiler Tillery, local hog buyer and shipper, as he sat on a nail-keg in Scudder & Son’s store at Mud Lake. “Bub Spivens is a slicker. They talk about us farmers bein’ green, and makes jokes in these here funny papers concernin’ how we bite greedy as get out at everythin’ that comes along, but none of that applies to Bub Spivens, by jinks!”

“What’s Bub been up to?” asked Uncle Henry Hatfield. The rest of us, in solemn conclave assembled, waited for the answer.

“Bub’s sold his farm,” asserted Smiler.

“Sho!”

“Git out!”

“He ain’t, neither.”

“Who to?”

Which comments would indicate that Bub Spivens had pulled off an event of more than passing interest.

“It’s a fact,” maintained the witness stoutly. “And, what’s more, he sold it to Nate Fisher, down in K. C.”

This further insight into the subject having provoked another chorus of remarks, incredulous and otherwise, Smiler fired his last shot, which was a stunner. “And, to cap the climax—to put the fixin’s on the whole business,” he said, “Bub got ten thousand dollars in cold hard cash for her. I seen and helped heft the money.”

There are occasions which cannot be met by the mere futility of enunciated words, and this was one of them. Smiler had floored the bunch. Even Uncle Henry was knocked speechless, which was some business, as they say in Mud Lake.

Smiler, elated, began his story:

“You know, when old Jed Spivens died last fall, aged eighty-one, without a relative on top of the earth anywhere, he left a will. Squire Brown drew it up, as you all know without me tellin’ you; and you all know, besides, that Bub, who took care of the old man the last ten years or so, and was a mighty favorite of his too, heired all old Jed had, which wasn’t much, as it turned out.

“Bub never was adopted according to court by old Jed, but he always went by the name of Spivens, just the same. What is Bub’s real name, Uncle Henry?”

“Well, now,” said that old gentleman, taking off his glasses that he might wipe them with his blue bandanna, “I’ll have to calc’late a bit. Bub’s ma was originally Susy Whittington; she married Steve McCoy when she was sixteen, about. I recollect the winter they married was the hardest winter we ever seed in these parts. Froze ice four foot thick on the river, and snow kivered all the fences. Seth—aw, what wuz his name? A’terward wuz sheriff two terms, an’ a mighty good one, too—Jennin’s, that’s it.

“Seth Jennin’s driv’ a team o’ mares he had right smack over the snow-crust an’ ice on the river into Atchison, by hoky! Thet wuz a slatherin’ fine span o’ mares, too; they’d be wuth, to-day—”

“Yes; but, what about Bub’s pa’s name?” interrupted Smiler. “That was what I ast you, wasn’t it?”

“I wuz jest gittin’ to it, blame ye!” said Uncle Henry testily. “When Steve McCoy died, Susy had two or three small chillun; but they wuz all girls; accordin’ to my recollection. They grewed up an’ married. One married Judge Carter’s second oldest boy; one ether’n married Art Peterson, an’—let me study! What

went with thet uther McCoy girl? Seems she died, by hoky! I'm sure she did!

"She died the fall we had such a slam-bangin' crop o' fruit! Why, apples rotted on the trees thet year, what didn't fall off an' rot on the ground; couldn't sell 'em at no price. Charley Walker had the old Lemuel Martin place rented, an' he told me himself—"

"Shet up, or tell who Bub's pa wuz, if ye know," broke in Major Jeffries impatiently.

"A man by the name of Fugue or Pogue moved here fr'm Kentucky," continued Uncle Henry, unruffled. "An' the follerin' year this man Pogue's cousin come out an' rented the Martin place I wuz tellin' ye about. His name wuz Baird. He got to comin' to see the Widder McCoy thet fall, an' about Chrismus they up an' got married. A tree fell on Baird an' killed him a'terward, an' Susy finally married thet good fer nothin' Bill Dittrick. Bill Dittrick wuz as onery an old slip-scutter as ever breathed—whut did ye say, Smiler? Yes, thet's right. Bub wuz this Baird's boy—"

"As I was about to say," resumed Smiler, "what Bub heired didn't make him rich, though old Jed was once pretty well off, and about a week ago he took a notion he'd go down to Kansas City and see if he couldn't get him a job in a wholesale house or something.

"He come to me Thursday, a week ago, and wondered what chance he'd have gettin' to go down some time on a pass when I was shippin' a car or two o' hogs.

"'Best in the world, Bub,' I said. 'Come around Monday, and I'll fix you up. Want a pass for both ways?' He allowed that he didn't; he guessed he wasn't calculatin' on comin' back for a spell if he could find anything to do.

"'All right,' I said; 'I believe I'll run down myself. You come along about six o'clock Monday mornin', and we'll go together.'

"He was on hand, all right, luggin' his grip, and we piled into the caboose and hit the trail.

"'Smiler,' he says to me, 'kind of watch around after me the first hour or two when we get to the city to see that



"BUB GOT TEN THOUSAND DOLLARS IN COLD HARD CASH FOR HER."

I don't get run over by one of these auty-mobiles or somethin'. Ye know I'm a mighty green customer away from home. Atchison is the biggest place I ever was in,' he says.

"'Don't you fret, Bub,' I told him. 'You'll be all right, with me to watch after you. K. C. streets ain't so wide but what you can get across, safe and sound.'

"Well, Bub and me got off the train down in the yards, and while they was switchin' the stock around to where they belonged we went over to a restaurant and got dinner. Bub left his grip there, and we started out to find a boardin'-house for him. He said he had about ten dollars in money to tide him over till he struck some kind of a job.

"We looked into two or three places on the way up-town, but they didn't seem to suit Bub for one reason or other. He allowed they were too dark and stuffy, and he didn't intend to risk his health stayin' in no such unsanitary rookeries as them. He said he'd pay five dollars a week before he'd do it—"

"Thet wuz jest right, too," interrupted Uncle Henry. "Look at Mace Jordan, thet went down there to study dentistry. Roomed in a three-dollar-a-week boardin'-house, an' come home with the consumption. Died inside o' six months and—"

"Bub found a place he liked d'rectly, and paid a dollar down to hold it till he brought his grip, when he was to fork over the other two and a half. Then we went down-town to see the sights. You ought to seen Bub countin' the stories in the tall buildin's. He shore enjoyed 'em.

"Smiler, just think of the money it took to build these here stores.' He pointed out one ten-story buildin', and said he'd pretty near bet that it hadn't cost a cent less than a thousand dollars to build. I just laughed at him.

"Just about then somebody hollered across the street at us, and who'd you reckon it was but Nate Fisher—"

"That low down cur," said the Major. "That Nate Fisher skinned everybody round here he evér had dealin's with. We all know that he raised that note he held on old Jesse Winthrop fr'm a hundred dollars to nine thousand, an' made the widdier pay it—"

"Yes, an' all thet saved him wuz thet

it couldn't be proved on him, by hoky!" said Uncle Henry. "Nate Fisher would rob his own ma an' her down bed-fast. Why, I recollect once when he swindled me out of a span o' mules—"

"Yes, Nate had a little office with a sign on it that said, 'Real Estate, Loans and Insurance,' Smiler resumed, "and he was standin' in the door. 'Come over,' he said to Bub and me. We felt to see if our money was safe hid in our inside pockets and went over. Nate was as friendly as all get out.

"Well, well,' he went on, when we got inside and took chairs in his little office. 'I ain't seen anybody from Mud Lake for a year of Sundays. How's everything? Still clerkin' in the store, Smiler?' I told him I was buyin' and shippin' a little stock now and then. He allowed that was a good line of business.

"How's old Jed Spivens stackin' up, Bub?' he ast. 'I s'pose you an' him are still operatin' the hundred and fifty acres down on the river?'

"Jed's dead,' Bub told him.

"Well, well,' he said, mighty surprised. 'A right nice old man Jed was. You was his sole legatee, wasn't you, Bub?'

"How's that?' ast Bub, puzzled.

"You heired what he had, didn't you?'

"Yes, but—"

"Sold the old farm yet, Bub?' Nate broke in without waitin' for Bub to finish what he started to say.

"Nope,' said Bub.

"What'll you take for it?' Nate come back with.

"Aw!" Bub kind of grinned. 'I wouldn't want to swindle you. That there farm of mine is—'

"Never mind,' said Nate. 'I know what she is. Of course it's run down an' all that, but it's good bottom land an' well watered, bein' on the river—'

"Yes, it is,' Bub agreed.

"I'll give you fifty an acre for her, Bub,' Nate said. 'Sight unseen, take it or leave it. What d'ye say?'

"Aw, say, now, Nate,' Bub commenced. I saw Bub appeared to be kind of confused, so I butted in.

"Give him time to think it over, Nate,' I said. 'Fifty an acre is a fair

price, but there's lots of land round Mud Lake sellin' for as high as seventy-five an acre now.'

"Yes, but them kind of places has mighty good improvements," he said, 'and you must remember I'm offerin' spot cash. I'll write you my check for the total amount right now. What d'ye say, Bub?'

"Of course," he went on, 'it's understood that you can give me a clear title to the place—'

"Yes, that part's all right," said Bub. 'I've got the will an' all the papers in my pocket right now. There they are. But—'

"Nate was anx-iouser than ever when he'd looked over the will an' seen that Bub was the sole heir to the farm. 'No buts goes,' he said. 'I won't hold this offer open, Bub. You take it now or it's all off. What do ye say?'

"Well, to tell the truth—' Bub looked like he hated to tell the truth just then—'I've had a better offer than that, Nate, so I can't do nothin' for you.'

"That set Nate afire right away. 'Why, I've turned down sixty dollars an acre for it once,' Bub went on. 'I wouldn't be likely to take ten dollars less'n that just 'cause it was you, would I?' And Bub never cracked a smile.

"That stumped Nate for a minute, in fact it stumped me. I was beginnin' to suspicion that Bub was foxier than he looked, so I kept still. Nate raised his bid to sixty-five but Bub didn't show much interest. Finally, he kind of yawns and says to me:

"Come on, Smiler. Hadn't we bet-

ter be goin'? We're just takin' up Nate's time for nothin'.'

"Bub, I'll give ye ten thousand dollars in cold cash for that farm," said Nate, as we got up to go. Bub studied it over a minute.

"Have you got the actual cash here,



"I'LL SET UP THE SARDINES IF
IT WASN'T IN YELLOW BOYS
'AND GREENBACKS."

where I can look at it? No check, you know,' he said finally.

"No, but you come along with me to the bank an' I'll get it," Nate said. 'You bet ye! It won't take ten minutes. Smiler can wait here an' amuse himself in the office watchin' the crowd go by till we come back.'

"Well, in a quarter of an hour they come back with some sacks and packages, and I'll set up the sardines to the crowd if it wasn't ten thousand dollars

in yellow boys and greenbacks. Bub had chose what he could carry handy in gold and the rest in big bills. I had to heft it once in my hands just for luck, by George! It was some money, I say.

"Then we went in next door to where there was one of these fellows that makes out deeds, and Bub signed over the farm to Nate, shook hands, and away we went with the money, all we could lug.

"Wasn't you ashamed to do it, Bub?" I ast him, as soon as we'd put fifteen or twenty blocks between us and Nate.

"I would've been, if it hadn't been for one thing," he said. "Once, when I was a little kid, I lost a five-dollar bill—the only money I had, an' I'd been savin' it up by nickels an' dimes for three months to do the fair with. An' Nate Fisher found it, an' kep' it. I *know* he found it, an' I'm shore he kep' it."

"Le's go somewheres," he said, "where we can buy us some dollar seegars an' hire one of these autymobiles to take a ride around town in." And that's what we did, you bet."

There was an uproar of laughter and

comments when Smiler finished. Even the major unbent himself enough to express his satisfaction in no half-hearted terms, and Uncle Henry Hatfield laughed until the tears dripped from his chin. He had once dealt with Nate Fisher in a horse trade, and revenge was sweet.

One man in the company did not join in the hilarity. He was a traveling salesman from Saint Jo.

"What is the funny part of it all?" this person queried. "Wasn't the farm any good? What the—"

"Don't ye ketch on?" Uncle Henry said. "This here farm o' Bub's wuz swallered up in the hungry maw of the Mizzoury River durin' the last two June rises. Ever' bit of thet farm is caved into th' river. Ther' ain't enough of old Jed Spivens's place left to plant a turnip on!"

"Where'd Bub go to, Smiler?" asked the major.

"The last I seen of him, he give me a hundred-dollar bill to keep to remember him by and got on the train for Seattle," said Smiler. "And he was togged up like a banker too, I say."

EDUCATING SIGNAL-MEN.

WHILE it is, perhaps, too much to say that each successive development in the "art of signaling" demands a higher degree of technical knowledge and skill on the part of the average signal-man, it is true, nevertheless, that the general improvements in quality and increases in quantity of signal and interlocking apparatus occur so rapidly that the signal-man's responsibilities are constantly becoming greater.

The growing demand for books on signaling and allied subjects, and for other means of individual study, is evidence, however, that he is preparing himself to meet the new conditions.

Of great interest in this connection, are the methods which various signal departments are adopting to place educational facilities within reach of their members. Some of these take the form of class instruction, conducted at some central point where, at

intervals, the men within reach assemble for general work in certain fundamental subjects and for open discussion of their problems and the methods of solving them.

Others are more in the nature of individual instruction, such as the examining of one man on his knowledge of a text-book previously given him to read, or upon the rules of conduct in certain cases and the reasons therefor; or, perhaps, a series of private lessons in a prescribed subject given by a superior officer.

In all cases the methods employed are those best calculated to meet the existing conditions. The comparatively large proportions which some of the educational movements have attained speak well for the signal-man's appreciation of his opportunity, and the railroad's realization of the value of a better-equipped employee.—*The Signal Engineer.*

A yard engine can make a flying switch better than a mogul. Each to his job.—Remarks of a Hostler.

OLD-TIMER TALES—No. 3.

The Record of 999.

BY REMSEN CRAWFORD.

IT is seventeen years since engine 999, of the New York Central, reeled off what was then the fastest mile on record. With one exception it is still the record. We have built heavier engines, that would pull longer trains at a higher rate of speed for more hours than would the 999, but that wild dash for the world's record has been "gone better" but once.

Naturally, an engine built for speed, and made to produce it day in and day out, could not be expected to last long at that sort of work. Old 999 served her time as a thoroughbred, and dropped back to the cart-horse class for a time, finally finding a comfortable place among the family dobbins of the rail. She is still to be found in the latter class, receiving the reward of a long and useful life.

Career of the Engine that Established a New World's Record for Speed in 1893, which Has Been Beaten But Once Since That Time.



ALITTLE while ago I mingled with the throng of happy home-comers, flocking like migratory birds from the Thousand Islands of the St. Lawrence River.

The little town of Clayton, New York, nestling close beside the upper neck of Lake Ontario, was literally filled that day with its annual pilgrimage of summer tourists.

Like a veritable army, they came on lake or river craft, and crowded about the railroad station, clamoring for baggage-checks, chattering like magpies, and driving the ticket-agent to madness with a million questions.

Out in the railroad yards the engines were holding high carnival, their clanging bells and coughing smoke-stacks sounding for all the world as if each of

them had a story to tell, and they were trying to talk, all at once.

Presently, there came a distinct peal from a bell—more nervous, more earnest, wilder than the rest. It carried the unmistakable expression of a locomotive entering a city after a wearisome journey, and soon the massive form came in view at the head of a train of passenger-cars, like a black giantess with a string of toys.

Nearer, clearer came the wild warning, clanging tone, as the giantess pulled in and glided to a halt alongside the platform.

Meeting an Old Friend.

I began to run my eyes over the perfect form and figure of the great iron creature before me, a habit I formed years ago when my duties threw me with machinists

and railroad experts. There was something familiar about this colossal engine—familiar as a letter from home.

I was wondering where I had seen her before, when there shone forth from her shielded breast that historic, magic name—999!

I had found an old acquaintance in the crowd. Thirteen years ago I had been introduced to her in Chicago by Charley Hogan, the daring engineer, who loved her as he would his bride. Even then I had not felt as a stranger in the presence of 999, for who had not heard of 999, with her record of a mile in thirty-two seconds?

She it was that revolutionized railroad-ing; that set a new pace for express-trains; that brought Chicago nearer to New York, and became the pet of the plutocrats who owned her, the pride of the nation which adored her. Yes, I knew every chapter of her life.

Like thousands of others, I had read of her birth in the smoky shops of the New York Central, in April, 1893; how she had been hailed as a creature of destiny, fashioned as she was for the mission of mocking at all the records of speed; how she had gone forth, and with greatest ease torn these records asunder on her first trip, sending word to Cornelius Vanderbilt to put on the dream of his life—his twenty-hour train to Chicago.

I knew how she handled that train in the years that followed in a way to scatter consternation among the Britishers, with their East Shore and West Shore flyers, by settling upon this country the championship of fast long-distance travel.

Her Last Days.

I had seen her there at Chicago on exhibition, in the heyday of her triumph, where thousands of World's Fair visitors thronged about the pedestal where she sat like an enthroned queen of iron, twirling her great drivers. I had seen her flying through country towns.

I had seen her in the Grand Central Station at New York, when mechanical engineers and all manner of men of constructive genius gathered around her for study.

And here she was, at last, lost in oblivion to the great main line current of

traffic, pulling a train of cars on the Rome, Watertown and Ogdensburg Division of the New York Central, between Syracuse and Clayton.

"How are the mighty fallen!" was my first thought, and I looked with a sort of sympathy upon the handsome creature, which seemed to speak like something near human, with her air-pumps groaning and breathing as if winded and worn out by the journey she had just made through the clover-covered hills of northern New York. I wondered what had become of this world-famed locomotive all these recent years, when nothing has been heard of her.

Mr. Vanderbilt's Orders.

I was anxious to get accurate, reliable information about her history in detail, and determined to put myself in communication with all those who have been her keepers and her associates since she was first led out of the West Albany shops to awaken the world.

From W. O. Thompson, division superintendent of motive power of the New York Central at Oswego; John Howard, the superintendent at New York; and Charles H. Hogan, now division superintendent of motive power at Buffalo, and formerly her engineer, who was with her when she broke the world's record, I have gathered the full story of 999.

Engine 999 first glided out of the railroad shops of the New York Central at West Albany one morning in April, 1893. One of the Vanderbilts had given orders for an engine to be made that would travel faster than anything under steam had traveled.

He had watched the advances in railroading and locomotive construction in England and at home. He had a keen sense of the competition that was increasing every day among the railroads of America.

He had studied the nature of Americans, and knew that they were a people of great haste and impatience, willing to take risks beyond all other peoples of the world to gain a point. He knew that the competition of great American trunk lines for the future was essentially a competition in speed.

Besides, that was the year of all years

for the great Vanderbilt system of transportation lines to make a showing. It was a festival year in the progress of the American Republic—the year of the Chicago World's Fair, the greatest exhibition of things industrial ever known.

Cutting the Time to Chicago.

"We must bring Chicago several hours closer to New York," he said repeatedly at meetings of the directors of the New York Central. "We have spent millions to make the road-bed safe and sound. What we want now is an engine that will go the gait.

"Have one built at any cost. Put drivers on her big enough to cover a good jump at every stroke of the piston-rod, and put enough steam into her cylinders to keep those drivers busy."

The order went to the master mechanics, and they set to work. The outcome was 999, a greyhound of iron.

When she rolled out of the West Albany shops that April morning, Charley Hogan was there to take her in hand. He was an experienced engineer, a man of nerve and determination, whose whole life centered in his work, and who, on many occasions, had shown himself ready when danger lurked about his path of duty.

"Take that engine and break the world's record," was the order Hogan received.

"Give her to me just one day ahead of the test," he replied. "I want to take her for a gallop all on the quiet, just to see how she behaves herself."

A "Warming-Up" Canter.

He was told to take 999 for as long a time as he wanted to make the tests prior to putting her on record publicly. So the first day out was all for Charley Hogan's personal benefit and satisfaction.

Hogan looked at the great driving-wheels, taller than himself, and knew that with their seven-foot diameter they would cover twenty-two feet of rail at every stroke from the cylinders. He examined all the machinery and gear, and noted wherein it differed from other engines he had ridden.

He knew the laws regulating steam

pressure, and the power such pressure would engender. He was thoroughly informed as to the inward nature of this new departure in locomotive construction. All that remained was for him to get the work out of 999.

With a feeling of pride, he sprang into the cab and flung himself on the seat beside the throttle. Shining in the sun like a jewel, 999 glided as gracefully as a sprite over the side-tracks and onto the ponderous steel rails of the main line.

Charley Hogan touched the throttle again, and the massive engine bounded forward, sensitive as a tender colt under the lash. On and on she sped at a swift clip, each time smarting under a pull at the throttle, and hissing like a wild panther with each flush of steam.

Now and then Hogan closed the throttle by degrees, and saw that 999 slackened her speed quite as obediently as she had picked it up when the throttle was opened. He tested her brakes time and again, and saw that they would warrant him in taking the bridle off if he chose, but Hogan didn't choose to that day.

The Real Thing.

His stop-watch had told him that 999 was already a record-breaker, and he wanted to have something up his sleeve in the way of a surprise when the time came for him to make the real public run.

He did not get all out of her that he knew to be in her on that trial trip; but when he took her to the roundhouse at Syracuse, that night, he had established a record in her favor of one hundred and two miles an hour, and he knew by the way he saw her bound ahead at the slightest touch of the throttle that she would go faster.

It was on May 11, 1893, that the real test came—a race against every locomotive engine on the face of the earth. Charley Hogan was ordered to take 999 to Syracuse, meet the Empire State Express there, couple onto the train, and take it to Buffalo as fast as he could.

By this time it was generally known that this new engine was out for the scalps of every engine in service. Speculation ran high in railroad circles as to whether the locomotive could do what had been mapped out for her.

Hogan had kept his little joke all to himself. He knew that 999 could "deliver the goods."

He played with her a trifle after the city of Syracuse was behind him, just to see if she was in the same humor as when he first tried her out. He saw that she was. If anything, she seemed all the more anxious to be turned loose, but Hogan held her down to an easy gait, and made Rochester on the minute.

A New World's Record.

He knew his road-bed better between Rochester and Buffalo. He gave the throttle a nice little squeeze, and 999 sprang forward like a nimble horse. Approaching the town of Batavia, she was rushing along at an easy gait.

Hogan touched the throttle again, and held his hand there while he watched his timepiece. Then it was that 999 shook herself with a tremble as a racehorse does when a jockey digs the spurs into its flanks, gave the cars a suggestive jerk, and settled down in earnest.

She equaled the world's record with great ease, making a mile in thirty-five seconds; and Charley Hogan looked at the fireman and smiled. He pulled again at the throttle, and murmured to himself: "Now, then, we'll go after that record, and set a new pace for the world."

This seemed to be what 999 had longed for all the time, for never before had Hogan pulled his throttle wide. Her great drivers sped round beneath her with marvelous rapidity, each time they turned throwing the great mass of iron twenty-two feet forward. Charley Hogan was all eyes then, for he had to keep a view of the track ahead and watch his timepiece too. The other timekeepers on the train were all busy with their watches.

Telegraph-poles multiplied in Hogan's vision as they had never multiplied before. With a buzzing of air, the engineer vaguely saw the mile-post ahead, and fixed his eyes upon his watch. The mile had been covered in thirty-two seconds. The world's record had been beaten for a single mile by three seconds, and Hogan sped on at the same gait to Crittenden, many miles farther.

That very day the executive committee of the New York Central Railroad held

a meeting, and waited for the news from 999. When it came, they voted to put on the twenty-hour train between New York and Chicago. They also determined to put 999 on exhibit at the World's Fair, and Charley Hogan was sent along with her.

The engine and her master were greeted there by thousands, and 999 became almost a household word. She had established a gait of 112.2 miles an hour, which had never been dreamed of, and which has been excelled but once since, when the Philadelphia and Reading ran a train 4.8 miles in two minutes and thirty seconds near Egg Harbor, Pennsylvania, in July, 1904, which is equal to 115.20 miles an hour.

Afterward, 999 was brought back East and put in service as the star engine of the Empire State Express, Charley Hogan still at the throttle. On various occasions he turned her loose, each time showing that she was true to the record she had set.

Her service for several years also proved that the public notion that she was built as an advertisement only was false. The engine did excellent service in pulling with safety and at great speed heavy trains of cars on both the New York and the Buffalo divisions of the line.

Hauling a Milk-Train.

As travel increased, however, the demand for a more powerful engine grew, and the type now in use for pulling the Empire State Express is much heavier, much stronger, and also very speedy, though the record of 999 has never been equaled by any of the newcomers.

Strange as it may appear, neither of her twin sisters, 888 and 777, equaled the speed test that 999 bore so easily; and equally strange it is that, although Archie Buchanan, Ed Chase, and half a dozen other crack engineers have handled 999, she has never consented to show her speed with them at the throttle as she did to Charley Hogan.

After she had been replaced by stronger locomotives on the main line, 999 was put to hauling a milk-train. In this ludicrous rôle, she became the target for the bright and witty fellows of the press, and one of them printed a very pathetic in-

terview with the old engine, which she said she gave him on a side-track in the freight-yards of the New York Central.

Her wheels were cut down from eighty-four to seventy inches, and she was sent to the R., W. and O. Division for use. Division Superintendent of Motive-Power W. O. Thompson thought too much of her to give her an ordinary task, and she is now pulling what is known as the Syracuse and Clayton Club train, which is ordinarily composed of a buffet-car, three parlor-cars, and two first-class coaches.

The schedule puts a speed on her of about forty-five miles an hour, and she

handles the train in a highly successful manner. The engine is practically the same now that she was when she made her record-breaking run, except that she has a little smaller driver and a new boiler.

Charley Hogan, her favorite engineer, has been promoted to division superintendent of the Buffalo Division of the New York Central, with headquarters at Depew, New York. He frequently gets letters from all parts of the world asking him about 999, and how he felt when she took him over that mile in thirty-two seconds; but Hogan is a modest man, and hardly ever talks about the incident.



PRIZES FOR APPRENTICES.

Grand Trunk Shows How It Appreciates the Motive Power of a Special Reward for Superior Work.

THE winning of a prize, however small, has a fascination and stimulus entirely out of proportion to the value of the reward. There is a sort of "glory of conquest" in beating everybody else to a fixed goal that appeals to human nature, especially to the young. The Grand Trunk Railway takes advantage of this instinct among its apprentices. Every year, in every shop, it offers prizes for excellence, says *The Railway and Engineering Review*:

"The annual competitive examinations is always conducted by the company's chief draftsman from Montreal, and has just been completed at all the large shops along the system. Prizes are awarded to the apprentices obtaining the highest average in their respective years.

"These prizes amount to \$40 for each shop, and are distributed over the different years of apprenticeship, thus: The apprentice obtaining the highest average for his first year in mechanical drawing gets \$4; the highest in practical mechanics \$4 also. So it is possible for one apprentice to obtain both prizes.

"A keen interest is taken in this examination, which takes the form of a contest between the various shops. In addition to the

prizes as stated above, there is a capital prize offered of \$25 for each subject. This is competed for by the apprentices obtaining the highest averages in drawing and practical mechanics at their respective stations.

"These apprentices are given a trip to some point on the system where the final examinations are held, and the one receiving the highest number of points in each subject receives the amount stated.

"This, added to what he has received at his station, will make a total of \$29, \$33, or \$58, if he has been successful in all subjects.

"After the season has closed, the boys at some of the large shops hold what is termed 'apprentice night.' This is the social event of the season. Each one makes a drawing, which is neatly gotten up and inked in.

"This is placed on exhibition, and the prizes are awarded for each year of apprenticeship. These prizes amount to \$2.50 for the first prize, and \$1.50 for the second prize.

"There are also prizes offered for special colored drawings amounting to \$3 for first prize, and \$1.50 for second prize. This may be competed for by any apprentice, irrespective of his year, and considerable interest is manifested by those of artistic ability."

ALWAYS A RAILROAD MAN.

BY E. A. SPEARS.

An Old Eagle-Eye Talks About Business Systems in Railroading and Why It Is Hard to Quit When Once You Have Eaten Cinders.

"THEY'VE got railroad bookkeeping down to a fine point," said an old eagle-eye. "For example, they can turn to their records and learn just what an engine has cost to run, and how much the engine has earned.

"If my engine needs a flag, I am ordered to get it, and it is charged up against the engine, and the company knows that I got it. They know how long it takes for an engine to earn back what it costs. They can figure out how much a depot is worth, and when they build a new depot they know how long it will be before they get back what they have spent.

"In old days, if a car jumped the track, the crew would lay it to the bad road-bed, and this department would lay it to the crew. To-day it is different. There is more team work and a greater desire to help one another.

"Now, according to the rules, a brakeman is not supposed to shovel coal for a fireman and a fireman is not supposed to disconnect an engine for a brakeman, when water is being taken, but in an emergency, the brakeman is doing the proper thing if he helps the fireman to shovel down coal in the tender. One trainman I know was fired because he delayed a train twenty-five minutes by just such a refusal. He wasn't cooperating.

"Speaking about cooperating, did you ever read a statement on the subject, posted in the various roundhouses and depots on the New York Central? President Brown is full of the idea. It isn't just talk, but he means what he says. He is one of the friendliest of men you ever knew.

"We railroad men would be sitting around and Brown would come walking in. Everybody would be quiet as a mouse. Brown would say:

"'You needn't be afraid of me, boys,' and then he would commence to talk in a friendly manner. Before long he would get deep into the subject of railroading, and he would tell what the road is trying to do.

"When he gets interested, he almost cries. Every one likes Brown. He worked

up from the bottom and has a deep regard for every man on the road. Any man with a grievance can carry it straight to Brown and he will listen.

"The men would do anything for Brown. It makes all the difference in the world how the boss stands with you. While I was working on another road, there was one boss we all liked. When he asked us to do anything, we did it speedily and cheerfully. But the other fellow would try to boss us about as though we were slaves.

"When he was out of sight, we'd loaf. When I got ready to quit, I quit gladly.

"Speaking about quitting, a whole lot of railroad men are just ready to quit. They keep saying, 'Well, I'm going to quit.' But they never do. There's something fascinating about railroading. You come home dead tired and swear that you'll never go back again, but there you are, just as sure as fate. An engineer I know says that every trip will be his last, but it isn't.

"I said once to a fireman who was talking about quitting:

"'Why, man, you're earning four or five dollars a day. What would you do if you quit—you are too old to learn anything else?'

"He said: 'Well, I guess I can do carpentry, just as I did before I came on the road.'

"He thinks he could, but he couldn't. He has forgotten a lot of carpentry, and, besides, he would be twenty years behind the times. >

"I know a conductor who got fired. He was earning good money, but now he is cleaning streets. Another man works in a brewery. Another works about a hotel, and I know quite a number that have jobs which pay about a third what they got on the road. They left too old to learn something that paid as well as railroading.

"If they have saved, they may start a small business, but they will not be up-to-date in that business. Railroading is hard work. It pays well, and there is something about it that makes it hard to cut loose from it. Once a railroad man, always a railroad man."

BREAKING THE COMBINE.

BY WILLIAM S. WRIGHT.

**When Men Are Bound Together for No
Good Purpose, It Is Well To Interfere.**

CHAPTER V.

Greek Meets Greek.



ABOUT ten minutes later the fire-gong clanged. To Leigh's astonishment, no man rose to ascertain the location of the fire by consulting the signal-book. "Four—nine—three," he said, as the gong beat out the signal-numbers for the third time. "If I recollect aright, that's at Atwood and River Streets—tenement-house district, with the Folsbee paint-factory in the middle of it." And he reached for his hat.

"Where are you going?" cried Halstead.

"To see what the fire amounts to," said Leigh curtly.

"Aw, sit down," laughed the other, "and get used to the ways of this crowd. We don't go out on first-alarm fires—only third alarms."

"But," asked Leigh, "suppose things break loose on your first alarm—as they're likely to—what then? Some of these dinky little fires give up the most news."

"We hear of them through police headquarters, or somebody calls us up from the precinct station-house, or; if an ambulance has been wanted, the hospital doctors usually give us the tip over the telephone," explained Ely.

"Easy times you must have," remarked Leigh tentatively.

"Sure thing," said Ely. "Else, what's the use of a 'combine'?"

Leigh looked doubtfully at the speaker. "You must miss a whole lot of good stuff, waiting for news instead of hustling for it," he said.

"We get all the news that we want," snapped Ely, "and—I don't think we want any advice on the subject. As a committee of ways and means, this crowd, up to date, is satisfied with itself and its methods of doing things. Give me three cards, Cronson."

"Keep your hat on, Ely," remarked Allen. "You forget that Billy's a stranger to us, and that in consequence he's got a right to ask questions. As a matter of fact, we *do* let a bunch of news give us the go-by every day, just because we're too lazy or dopey to grab it."

"Keno!" howled Griggs, suddenly awakening and as suddenly going to sleep again.

"Griggs and Allen seem to think that they're on 'space,' like Leigh is," said Ely maliciously.

Allen flushed. "If I were, maybe I'd make you make a bluff at earning your living," he retorted. "It isn't by reason of your society being so everlastingly fascinating, Ely, that I'm found in it for some hours daily. It's only because—"

"Oh, stop growling, you two," interposed Halstead, "or have it out when the game's finished. Your ante, Bronson."

The men subsided as bidden, and Leigh again moved toward the door.

"Hold on a minute, Billy; I'll go with you," said Allen suddenly. "And"—he glanced at Griggs—"I think a walk would do him good, too, eh?"

Leigh assented. Griggs was protestingly hoisted to his feet, his face swabbed with a towel dipped in ice-water, and, after a brief struggle—during which Allen administered what he described as the "facial percussion treatment" with the flat of his huge hands—Griggs departed peacefully with the others.

The fire did not amount to anything apart from the panic which is the accustomed accompaniment of a tenement-house blaze; so the trio—Griggs having become his own man again—turned to go.

"Where now?" asked Allen.

Leigh pulled out his note-book and read off a list of happenings that were to take place in the district during the evening—it was then only half past seven o'clock.

Allen looked puzzled. "You're surely not going to look after all of these?" he asked.

"Won't the rest of the fellows handle some of them?" asked Leigh.

The other shook his head. "No; I'm pretty sure they won't."

"And why not?"

"Well," said Allen hesitatingly, "we—that is, they—don't trouble with much outside of the 'must' matter of the district."

Leigh made a gesture of impatience. "Well, Jimmie, just for once, break the rules and come along with me."

The other shook his head, but hesitated nevertheless. "I'm one of the combine, you must remember," he said laughingly.

"And I'm sorry you are, considering what the combine is," replied Leigh gravely.

Allen grunted, and Griggs snickered.

Leigh didn't pursue the subject further, and the two walked a block in silence. Leigh halted as a cross-town car-track was reached.

"I'm going over to Columbia Hall to the Highburg Board of Trade meeting," he announced. "Understand they're going to get busy with Burke and his crowd to-night over the Mainway improvement and other local contracts. We have a hint that there will be a red-hot time of it, and that the preliminaries, looking to a legislative investigation of Burke and his crowd, are to be put in play."

Allen looked at him queerly. "You know, I suppose, Billy, that—that—Burke is a pretty decent fellow."

"Never heard it till now. Thought he was about as bad as they make 'em, politically and in other ways. But, supposing that he deserves your good-conduct badge, what's that to do with the board meeting?"

The other looked uncomfortable.

"Well, I'll put it another way, then," replied Allen. "He stands well with the combination."

"And?"

"The combination doesn't like to see its friends get the rowel."

"Have you been asked to tell me this?" said Leigh, looking Allen squarely in the face.

"I have not, Billy," was the instant answer. "But you and I have always hit it well together, and—and—well, I don't want to see a good fellow like you run up against a barbed-wire fence, as some of your predecessors have done—to their disadvantage."

Leigh smiled. "I appreciate the warning, Jimmie, but when the combine pays me my salary I'll do by it and its friends as it wishes, and not before. It may think it owns Highburg, but it's beautifully mistaken if it thinks it owns me."

"The others talked like that," said Allen, with a note of pleading in his voice.

"Good for them. I'm sorry that they didn't last out," was the reply.

A car hove in sight. "Will you come along?" asked Leigh.

"No," said the other; but he looked wistfully at his friend.

"Then, good-by for the present," cried Leigh as he caught the car on the fly. "I'll see you later at the Municipal."

At about eleven o'clock Leigh, true to his promise, appeared at the reporters' quarters. Five of the combine were present, including Allen. The poker-game was still on.

"Anything doing?" he asked cheerfully.

Jennison, the dean of the combine, and representative of the *Martport Gazette*, exchanged glances with the others.

"Have you got anything?" he said.

"Yes," replied Leigh, producing a note-book and copy. "Good stuff at that. Want to take any of it?"

"I'd like to hear what you have first," growled Jennison. "Maybe we'll use it, and maybe we won't." His tone was a challenge.

Leigh felt that a crisis was approaching. Then he proceeded to read, noting, however, that none of the others were taking notes of his items. When he had concluded, Jennison spoke again.

"That kidnaping affair in the fifth pre-

cinct will probably turn out to be just an ordinary case of lost kid. I don't take any stock in it, and won't write it. Understand? If the Strauss sugar-house accident had been as out of the ordinary as you say it was, it's queer that we didn't hear of it from Dr. Bayliss, of St. Mary's Hospital. As we don't usually go over the doc's head, we won't use that, either. About the Board of Trade meeting we'll send in a few words."

Leigh looked at him. "Did I make myself quite clear?" he asked. "Senator Clives and Assemblyman Potter deliberately charged Burke and his associates with out-and-out theft, and pledged themselves to set the wheels of legal and legislative machinery in motion to punish them. Their speeches were the culmination of a whole lot of sizzling oratory."

"Oh," snorted Jennison, "those stiffs are all hot air. Burke is It in this district, and cares no more for the gassing of that crowd than he does for a ten-spot when one of the boys needs it. Burke's all right."

Leigh felt himself growing hot at the clumsy hint of the speaker, but managed to keep control of his temper. Just then he glanced at Allen, and the expression on the latter's face puzzled him. It seemed as if the fellow was encouraging him to continue the controversy, which, indeed, Leigh was only too willing to do, being in no humor for compromise, and feeling, too, that he had reached the parting of the ways.

"Leigh—" began Ely.

"You'll kindly hold your tongue," interrupted Allen, a gleam of battle-light coming in his eyes. "Leigh's got the floor."

Ely scowled, and Leigh resumed.

"Burke may be all right as you know him, but that's no reason why I should kill a piece of news in which he figures."

"Leigh's on space, you know," said Ely, with a grin, addressing Jennison.

"And if Leigh wasn't on space," retorted that individual, "he would do precisely as he's now doing. It would almost seem, Ely, as if you were not in the district to get news, but to keep mum about Burke in return for Burke's rum."

"Rime and reason," chuckled Griggs.

Ely again opened his mouth to reply, and once more Allen cut him short.

"Shut up!" he said angrily. "This is between Leigh and Jennison. When they get through, you can butt in. Meantime put the nippers on that wagging jaw of yours."

Jennison rose and lit his pipe. "We may as well understand each other first as last," he said, turning to Leigh. "If you care to come into the combine, you're welcome, provided you do as the combine does. But I've a shrewd notion that you're in the district for the express purpose of going it alone. Maybe I'm wrong, but I think I'm right. You're a clever boy, Leigh, but if you imagine that you can down this little coterie as easily as you've done some other star jobs on the *Record*, you're mistaken."

"I think," replied Leigh slowly, "that it's come to a show-down. I'm here to get the news of Highburg—and I intend to get it. If I tread on the corns of you fellows or those of your friends, I shall be sorry—but I'm out for the news, all the same."

"Don't be a fool," broke in Halstead. "Even as it is, there's sufficient space in this job—plus your salary—to satisfy your lust for dollars, Billy."

"The job might satisfy his pocket, but not his conscience, you know," said Jennison, with a lumbering attempt at sarcasm.

"I don't consider you an authority on matters of conscience," retorted Leigh. "Anyhow, I'll have none of the combine, as it's now run, in mine; so good night."

"Go, and be hanged!" snarled Jennison. "A couple of weeks hence you'll be begging us to let you come back into the fold."

"I don't think so," said Allen suddenly. "Leigh's no cur. And all of the combine is not of your way of thinking, either."

CHAPTER VI.

The First Gun Fired.

JENNISON and the rest looked at him with mute amazement. Allen was bundling together copy, paper, note-books, tobacco-box, pipes, and other of his belongings.

"Leigh's estimate of this gang and its ways is about right," he said wrathfully,

stopping suddenly in his work and turning to the others. "We're a measly lot of muckers, who sell our souls for gratis booze and a microscopic share of the big graft that the Burke species couldn't get within a mile of if we didn't keep our pencils quiet."

"A sweet, wholesome, lovable congregation we are," he went on, his voice booming with self-contempt and anger, "gorgeous specimens of 'gentlemen of the press.' Oh, and a gritty lot, too—such a gritty lot! Afraid to even claim what's coming to us as accomplices of the gang that runs this district that engineers the rotten deals which have made High-burg notorious."

"Are you crazy, Allen?" cried Jennison.

"No, nor drunk!" said the other fiercely. "But Leigh's stand on the matter has brought to a head my determination—that isn't by any means new—to cut the combine—"

"Rot!" cried Halstead.

"Truth!" replied Allen. "I'll not stand in any longer with— Here, Leigh, let's get out of this, or I'll be saying things that I'll be sorry for."

"You'll be sorry for what you have said," declared Jennison threateningly.

Leigh took the other by the arm before he could reply, faced him toward the door, and without further words the pair left the Municipal. Allen was hot with excitement.

"I want a drink, Billy," he declared as they drew near the café at the next corner.

"You'll drink—ice-water—at my—at our office," replied Leigh; "nothing else, until we have sent our copy down."

"Your office?"

"Yep. I looked for this rumpus, and so got quarters beforehand. It's a block farther up—first floor—over Higgins's drug-store. Snug place, and I've a telephone installed; also two desks."

"Two?"

"To tell the truth, Jimmie, I half-expected that I'd succeed in persuading you to break with that crowd. Anyhow, I intended to try. But I didn't look for the rupture to come about quite so suddenly."

"Nor I, although it was inevitable. But I heard a tale to-night, after I left

you, about certain easy money that came to Ely recently, that sickened me—and so the explosion. Still, as I said, I've been thinking over this step for a month or two. I'm not quite a bad 'un, Billy, and my little tears have always been of the impulsive sort.

"But this cool business of sitting down and making a permanent job of booze and loafing and borrowing is too much for me. Your coming here was a god-send. There is many a man who really wishes to get out of the gutter but can't manage it, simply because his moral knees are a bit too weak to help him onto the sidewalk of decency.

"That's the time for the friendly hand to get in its fine work. My moral plans and specifications aren't in keeping with my chest development, I'm afraid—in which respect you have the advantage of me." And he clapped Leigh affectionately on the shoulder.

"You're all to the good, Jimmie," said Leigh heartily; adding, with a chuckle: "It's been an iridescent evening. The inventory to date includes a fight with the combine, a news sensation for to-morrow, the rescue of a good fellow from perdition, and trouble ahead."

"And a bad beginning for the combine. I'll bet those fellows are worried," said Allen.

"Not as much as they will be, though. By the Big Blue Pencil, but we'll make 'em work!"

"You couldn't hurt their feelings worse than by causing them to do that," remarked the other with another cavernous smile.

And then they reached their destination, and wrote and telephoned news to their respective papers until nearly two A.M.

Leigh, that same morning, published in the *Sentinel* the proposed Burke investigation; and, as he had written it, it was, as Staynes remarked, "Hot stuff." The kidnaping case, too, made interesting reading. There were also half a dozen other good items. The night's work had been entirely satisfactory.

Allen had done nearly as well; so much so, indeed, that the city editor of the *Clarion* telephoned him, asking the wherefore of his unwonted industry. The newspapers of the combine had, as Jennison

had promised, but a few lines of the Burke sensation. In consequence, there was a lurid and general calling down of the combine members by their several editors, the replies to which were that the *Sentinel* story was more of a fake.

Jennison and the rest of the combine began to feverishly plan for Leigh's and Allen's undoing.

Before he went over to Highburg that evening, Leigh dropped in at the *Sentinel* office. Staynes greeted him heartily. "Ridgely's highly delighted over the Burke story," he said. "Billy, you're the only cereal. Are you going to give us more of the same to-night?"

"I guess so—including a talk with Burke. If he'll talk. And, Sam, I now expect trouble. The combine will, among other things, see to it that I don't get much out of the station-house blotters. So, get your police headquarters man to keep his eye on any slips that come from the Highburg precincts, and ring me up if he notes anything important."

"It shall be done," said Staynes; "and don't hesitate to let me know if at any time you want any help."

"I won't, but I've a good man to work with as it is." And he told the tale of Allen's withdrawal from the combine.

The city editor laughed. "'Tis the little rift within the lute of the combine, Billy," he said gleefully.

"Yes," replied Leigh; "but 'tis only the commencement, remember, and there'll be music in the air before the end comes."

Not far from the druggist's over which he had made his headquarters, Leigh actually ran into Burke when he was leaving a cigar-store. Now, the politician knew the foolishness of unnecessarily antagonizing a newspaper man in the latter's personal capacity. So he caught Leigh by the arm as if he were trying to save him from a fall, laughing heartily as he did so.

"Hallo, Leigh!" he cried. "That you? Trying to break my neck, are you? I think that's rubbing it in, after the 'roast' I got in the papers to-day." And again he laughed—a well-fed, well-oiled, well-trained laugh.

Leigh said something in the way of apology, and added:

"I was going to look you up later to ask if you had anything to say regarding

my article. This meeting will save me that trouble, if you can give me ten minutes."

"Ten minutes, my boy!" cried the other. "Why, cert'. Half an hour, if you want it. Come down to my place and we'll open a small bottle."

"No," said Leigh, "let's go to my office. We'll be free from interruption there."

"Your office?" asked Burke with a capital affectation of surprise. "Why, aren't you down with the rest of the boys at the Municipal? You know you're welcome there, however much you pound me."

Leigh glanced at him, understanding perfectly that he knew.

"Oh, that's all right," he said. "Thanks, just the same. But I like a quiet life; and—here we are."

He led the way up-stairs. The politician noted the telephone and other suggestions of permanent occupation.

"You look as if you thought you were here to stay," he said, and the reporter detected a tinge of malice in the remark.

"Yes," replied Leigh easily, "that's what I'm here for. And now, as I don't want to detain you, let me ask—"

So he put a lot of questions relative to the charges made against Burke at the Board of Trade meeting. Some were answered direct, others evaded, and yet others failed of reply altogether because, so the politician alleged, he knew nothing of their subject-matter.

The interview ended, and Burke rose. "I suppose the *Sentinel's* going for me again to-morrow?" he asked with a careless smile.

Leigh smiled back, but replied not.

"Why have you got it in for me, Billy?" went on the "boss" good-naturedly. "Was I ever up against you in any way?"

"No," said Leigh rather sharply; "and if you had been, it wouldn't have made the slightest difference one way or the other. It's a plain proposition, Burke—that, and nothing more. I'm in this district for the news, and the news I propose to get.

"Just now you happen to be the news. You're the best judge as to whether you are or are not to blame for that fact. But there's no personal equation in this, so far as I am concerned. If the Board of

Trade had voted you a halo, instead of handing you the remarks that it did, I should have written the proceedings just the same—as news.”

“And news it would have been, indeed,” replied the other with a grim chuckle. “Well, I’ll be going. But I hope that, outside of business, we’ll be friends.”

“I never ask too much of human nature,” replied Leigh with a laugh that, however, didn’t veil the meaning of his words.

“Nor I.” He stopped on his way to the door and faced the reporter. “I like an honest fighter like you, Leigh; and, as I said before, I hope we’ll be friends, come what may. But,” and he spoke very slowly and deliberately, “I think you’re making a fool of yourself. That little row at Columbia Hall don’t amount to a pinch of snuff. You’re not familiar with things in Highburg, or you wouldn’t attach any importance to it. Why, those long-eared mules—”

“Is this for publication?” asked Leigh, in accordance with reportorial etiquette.

“I don’t give a flip whether you write it or not,” replied Burke. “The point I’m getting at is this: we—myself and friends—happen to be running affairs hereabouts just now. The other fellows are squealing because they’re not in on the game. By the looks of things, they’re likely to remain out of it for a long time. In fact, I don’t see how they’re going to sit in anyhow. Consequently, while they may make a whole lot of noise, no harm’s coming to any one on this side of the house. See! You ain’t a baby, Leigh; you know what practical politics are.”

“And this, too, is for publication, I suppose?” said the reporter.

“No, it isn’t,” replied Burke bluffly; “it’s for you, and you only. It’s this way. What’s the use of you making yourself unpopular among people who have the power and who are willing to be friends of yours?”

“Friends?” said Leigh quietly. “In what way?”

“Any way you like,” replied the other significantly.

“I wish you hadn’t said this to me.”

“Why?” asked Burke, staring in a puzzled fashion.

“Of course, I understand what you mean; and so there is only one way of replying.”

“That being?”

“Well,” said Leigh with a smile, “you’ll find out soon enough. But you’re not the only practical politician who has made the same blunder.”

“I’ll be shot if I know what you’re getting at, Billy,” replied the boss.

“The fact is, Mr. Burke,” said Leigh very deliberately, “that you’re so used to mixing up with people who can be bought at a price that you imagine every man has his price—when you want to buy him. And therein lies your mistake.”

“It’s a fair proposition, anyway,” returned Burke. “I never ask a man to do anything for me that I ain’t willing to pay for.”

“If you think it’s worth paying for at your figure, you mean. I don’t think that we need talk further about the point involved,” replied Leigh. “You’ll have to excuse me, for I’ve a lot to do.”

Burke didn’t go on the instant, however. Instead, he came back into the room a little way.

“You’re going to declare war, then?” he cried, with another hearty laugh.

“No,” said Leigh; “but I’m going to tell the truth about Highburg—and some of its people.”

“Umph!” snorted the politician. “Telling the truth, as you call it, ain’t always the way to keep the peace.”

CHAPTER VII.

In Working Order.

LEIGH didn’t answer, and Burke again made for the door. “Well, Billy, good night to you, and remember that all’s fair in love and war,” he said.

The reporter turned to him with a confident laugh. “You intend that as a hint as to what I am to expect, but you haven’t a monopoly on everything and everybody hereabouts—especially the ear of the public.”

Leigh worked on his interview with Boss Burke for an hour or so, and then went to hunt up some of the Board of Trade members. On his return to the office at nine o’clock he found, somewhat

to his surprise, that Allen had not turned up.

Consoling himself with the thought that Allen was probably going the rounds of the district and would presently put in an appearance, he turned to the Burke matter once more. Just as he finished writing, the telephone-bell rang. Allen was on the wire.

"That you, Billy?"

"Yes."

"I'm sorry to have to tell you, old man, that I've come to the conclusion that you and I can't work together after all," said Allen.

"Is this a joke, Jimmie?"

"No; it's deadly earnest. It isn't that I'm scared of the combine, but I can't afford to antagonize a lot of people in Highburg by standing in with you—Burke among them."

"Up to now," answered Leigh, "I'd have smashed the man who said in my hearing that Jimmie Allen was a coward. But I'd let him go on talking now."

"Think what you like of me," came back, "but my mind's made up."

"Are you going it alone, then?"

"I can't quite tell what I'm going to do. Maybe I shall ask our people to take me out of the district altogether. Maybe I'll resign. And, Billy, be warned by me—cut out the *Sentinel* and don't try to fight the combine and the people that it's friendly with."

Leigh cut the conversation short by hanging up the receiver.

"Allen, of all men," he muttered. "I'll be hanged if I can believe it. But I'll see him to-morrow and find out the true inwardness of his surrender. There's something in this that he hasn't hinted at. Trying to scare me off by throwing it into Jimmie, are they? Well, we shall see."

Leigh, who had an unduly obstinate chin, unconsciously protruded that feature at the Burke interview. Then he telephoned to Staynes to send a man to help him over the evening, Allen's desertion having upset his plan of campaign. Staynes sent him Bryant, who had a reputation as a hustler. Together the two reporters got a tidy budget of news, although at a couple of station-houses the blotters were grudgingly opened by the gruff desk sergeants. At some of the

gathering places of Burke's associates—centers of political news—Leigh's reception was, to put it mildly, cheerless. The leaven of the combine was evidently at work.

When he reached the office again Bryant handed him a note that had come by a messenger. It was from Allen, and as Leigh read it he chuckled and slapped his knee.

"Bryant," said he, "please take carbon copies of what you have, and let me have them. And you can quit when you've got through with your copy. We won't try to cover the district again to-night."

At eleven-thirty came another messenger from Allen, bearing a bulky envelope, and receiving in exchange one from Leigh. When at midnight one of the *Sentinel* boys came for copy he took back with him a note for Staynes, marked "Strictly personal."

Now, the Highburg morning newspaper men were on duty until three A.M., at which hour they gave the "good-night" signal over the telephone to their respective offices.

Three-quarters of an hour before, Leigh laid down his cigar. "I don't quite like to do it," he said to himself, "but one has to fight the devil with fire, I suppose."

He rang up the *Sentinel*. He must talk to Mr. Staynes personally and in a hurry. Staynes came quickly, and in a voice that trembled with apparent excitement, Leigh gave him a brief but sufficient bit of exclusive news of a sensational sort.

It was to the effect that the two-year old child of Henry F. Dobson, one of the most prominent and wealthy men of Highburg, had been kidnaped from out of the Dobson mansion on the upper part of Arlington Avenue on the outskirts of the borough.

The child slept in a large nursery, on one corner of which was a bed occupied by the nurse. Some time after midnight the nurse was awakened by a draft of air blowing on her face. She found that the window of the nursery was open, and that the child's bed was empty.

A ladder leaning against the side of the house showed how the kidnapers had gained access to the room. The extensive grounds that surrounded the house furnished ample cover for the movements of

the daring person who had stolen the child.

One of the mysteries of the case was that three or four dogs that were let loose in the grounds at night, had given no warning of the presence of the kidnapers. When Mrs. Dobson was notified of her loss she became insensible, and a physician, who was called, declared her to be in a critical condition.

The subsequent confusion was responsible for the police not being promptly notified. Coming on top of the other kidnaping affair of two days before, it seemed as if a daring and organized gang of child stealers was operating in Highburg.

"Exclusive?" asked Staynes over the wire as Leigh finished.

"That's what I said," was the reply, "and I think I'll give you 'good-night.'"

Leigh hung up the receiver and stood looking at the telephone doubtfully.

"I don't know," he said to himself as he shook his head, "but I suppose it was called for. Yet—"

He turned out the lights and left.

CHAPTER VIII.

Blocking the Game.

THAT same morning every one of the newspapers represented by the members of the combine published the alleged kidnaping. In one or two cases the night city editors had added such additional sensational touches as their overheated midnight imaginations had prompted.

Neither the *Sentinel* nor Allen's paper had a solitary line about the affair. All of the Martport evening sheets, in commenting on the story as a rank fake, explained that no such person as Henry F. Dobson lived in Highburg, and that the scene of the alleged kidnaping was in reality a soap-factory.

Allen dropped in at the Seventeenth District Court at about noon.

"You see, Billy," he said to Leigh, "as I couldn't explain at length in my note, one part of the plan of the combine to shut out an anticombine man was to have the telephone 'centrals' tip us off when the former was phoning to his office and they connect us with the wire that he was using.

"Consequently, we only had to listen and take notes of what he was saying in order to make it nearly impossible for him to 'scoop' us. We were always pretty well posted by headquarters and our friends on the early news of the district, and the only chance that the other chap had of twisting our tails was to watch out for the happenings that we were likely to miss late at night, being busy with flushes and full hands.

"Of course, the gang knew that I would tell you all this; but that alone wouldn't have done much good to either of us. Central would have gone on connecting your wire with theirs, you would not have been able to prove it, and your phone would, in consequence, have been practically useless."

"So, your object, then, was for the *Sentinel* to get positive evidence that a leak was taking place with the connivance of a telephone operator?"

"Precisely. And that, too, was why I kept away from your office last night and made suggestions by note as to how you should work the thing. I wanted you and Staynes to be able to swear that only you two had engineered the test of Central's probity."

"And that, too, is why you so cruelly severed your connection with me over the phone," said Leigh, with a grin. He frowned a trifle. "It was justifiable, I suppose," he said haltingly; "but, to tell the truth, Allen, I didn't like to do it. I'm naturally not a very fluent liar, and it was certainly a bit of tall lying, you must confess."

"Tut, tut!" cried the big reporter. "It was merely a diplomatic assertion spiced with necessary reservation. The end always shakes hands with the means when the scrap between fact and fiction is over."

"But why did you want me to send a copy of my news to your house instead of coming to the office for it?"

"I haven't the slightest doubt that your incoming and outgoing was the object of much interest last evening," replied Allen. "If, then, I had visited you after telephoning my irrevocable determination not to have anything more to do with you, the sincerity of my declaration might have been doubted by some of my late associates."

Leigh's eyes twinkled. "How are you going to square yourself when they find out how they've been done by you?"

"I shall explain that you have exercised undue influence over me," was the reply. "And if that doesn't satisfy them, I'll call their attention to the fact that it's none of their business."

To be beaten by the *Sentinel* and *Clarion* over the Burke scandal was bad enough, but the Dobson kidnaping fake emphasized the need of drastic remedial action.

The interview with Burke obtained by Leigh was, as written by the latter, "tabascoesque," as Allen put it. Worst of all, there had begun to arise a public murmur that the *Sentinel* and the *Record* were the only papers that had sufficient pluck to tackle the rotten politics of Highburg.

The emphatic word went forth that, combine or no combine, such happenings as had characterized the past two days of Highburg's news couldn't and wouldn't be tolerated—that the next exclusive piece of news would be equivalent to the dismissal of everybody concerned therewith.

The combine took the rebuke scornfully and sullenly. Burke was informed. That afternoon the Highburg boss had a talk with one of the biggest men of the party. And the big man, who was very corpulent and had elephantine ears that readily lent themselves to the purposes of the cartoonist, called at the offices of the morning newspapers, who, politically, were affiliated with him and his. He wanted to know if it were true that they "was going to give the foot to some of them Highburg boys jus' because the boys hadn't thrown it good an' heavy into Burke."

And he wanted to know if there was "anything doin'—any hedging or fence-straddling behind it all. See?" And "never mind who he got it from—it come to him as straight as he wanted it. An' of course they could do as they bloody-well pleased; but if they was goin' to fall in behind the *Sentinel* muck-cart, he wanted to have it aforehand. An' while he didn't give a so forth and so on what they was goin' to do, the party wasn't goin' to be played for a fool!"

When the combine-breakers met again

that evening they had the air of those who know that real work lies before them.

"The overture being over, the play is about to begin," said Allen.

Leigh nodded. "Yes, we've got busy times ahead. Those fellows will stick us mostly on station-house stories. In other directions I think we can hold our own, or nearly so. But when it comes to the station-houses, I confess that I'm a bit puzzled as to how to act."

"You're right, Billy," admitted Allen.

"The same thing has occurred to me. I, too, don't quite see how we can get next in this direction."

Leigh mused. "The only thing that we can do for the present is to wait developments. If we find that we're being studiously thrown down by our friends in uniform, why, but one way remains."

"The same being?"

"Usually, Jimmie, one catches more flies with sugar than vinegar. In the first instance we'll try the saccharine treatment; if that fails we'll have to turn on the sour."

"Excellent! But how?"

"Did you ever yet know of a copper who hadn't a moth-hole or two in his record, through which you could prod him with a pencil and make him squeal?"

The light of understanding spread over Allen's countenance.

"True," he said. "If I hadn't been in the combine, I wouldn't have been put next to the ways of the gents in question."

"And I, too, have some similar notes in the neighborhood of my cuffs," replied Leigh. "Altogether I think that we're pretty well heeled for whatever sort of game we may run up against."

The earlier part of the evening passed without incident, except that at the quarters of the Franchise Club Leigh was refused admission, on the plea that an executive meeting of the members was in progress.

Burke was president of the organization, which, politically, was the most prominent of its kind in Highburg, and Leigh felt that something was brewing that was being kept from him purposely.

He determined to find out just what it was. Therefore, after telephoning to Allen, he began to patrol the sidewalk opposite the clubhouse, keeping in the shadows of the trees and an arc-light. The

meeting being over, he saw Halstead and Jennison leave with others, which confirmed his suspicions. He observed one Brone—a small, rotund German, the proprietor of a saloon.

Once upon a time a man with a pull, who also owned a saloon, tried to have Brone enjoined from maintaining a nuisance; for the man with a pull desired to monopolize local patronage. Later, his rival failed to close Brone's place, and, rightly or wrongly, the little German attributed the defeat of his foe to Leigh, and Leigh alone; for Leigh had made a funny story of the affair. So he took occasion to try and prove his gratitude in many and divers ways.

The reporter, remembering all this, followed his man until the latter turned into a side-street. "Hallo, Brone!" he cried. "How goes it?"

"Meester Leigh," responded Brone, his plump, shining little face crimsoning with pleasure. "*Ach Himmel*, how I am pleased you to see! Come my place in, we trink glass of beer? Oh, yes!" laying a restraining hand on the other's coat-sleeve. "You come must."

Leigh nodded; the saloon was reached; nobody else was there except the tailor who lived next door, and who was asleep on a chair in a corner. Mrs. Brone, the counterpart of her husband in face and figure, greeted Leigh heartily.

"Vos you the meeting at to-night?" asked Brone, after some general chat. Leigh had been leading up to the question.

"No," replied the reporter, "I couldn't get up," which was true; adding, with a yawn: "Anything interesting?"

"Eenteresting!" cried Brone. "I pet you! Some of the newspaper poys vos dere. I see 'em. Dey'll put lots der papers in."

"Perhaps so," replied Leigh; "but what was it all about?" He half rose as if to go.

"Seet down," insisted his host. "Thees is fine peece news. You vait. Lena, more beer; fine news, yes!"

With very little prompting, Brone then told how the meeting was really of a semi-executive sort—at all events, the door-keepers had instructions to bar all persons but members and "those invited."

Leigh smiled to himself at this, know-

ing the wherefore of the order. That a Home Rule Association had been organized to the end of checking "attempts at meddlesome interference on the part of the Legislature, in regard to matters that had to do with local interests, which interests were best administered by persons conversant with them"; that several of the Martport party leaders were present and made speeches denunciatory of the attack on Burke; and that, finally, a resolution had been passed to the effect that a bill be introduced at an early date, by one of the Highburg assemblymen, calling for an investigation of the motives and certain of the official methods of the inaugurators of the Board of Trade movement.

Leigh took but few notes. He had the tenacious memory of the trained reporter, and he excused himself as soon as possible after wringing Brone dry. Then he hastened to the office, where he found Allen awaiting him.

Allen looked a trifle worried. "I feel it in my bones," he said, "that there's something doing to-night that we've been shut out of."

"Why?" asked Leigh.

The other shrugged his shoulders helplessly. "I don't know why. I feel it in my bones."

"Your bones didn't fib, Jimmie," replied Leigh, and he told him of the meeting of the Franchise Club.

"That explains," said Allen. "I ran up against Jennison about half an hour ago, and his little green eyes looked mischief as I passed. 'Good night,' said I. 'Good night,' said he, 'and pleasant dreams to you,' and then he grinned. Evidently he was reveling in the thought of how joyous we'd feel when we read the combine's 'scoop' to-morrow."

"Get anything 'out of the district?" asked Leigh.

Allen handed over the scant notes that represented his evening's labor, and both men then fell to work. Leigh finished first.

"Eleven o'clock," he said, glancing at his watch. "Senator Clives is stopping at the Bay View House; he goes to bed early, as I know, and so I feel pretty sure that I'll run him to earth there. I'll also see Moriarty, the Board of Trade president. And Jimmie, if you don't mind

breaking up the beauty sleep of Halpin, the legal adviser to the Board of Trade, and one or two others who are interested in the matter, we'll put a sting in the tail of this story that'll make the combine look pale."

Both reporters were lucky in meeting the men they sought.

At about one o'clock in the morning they went to a near-by restaurant. On the way thither they met Burke. "Anything to tell us?" Leigh asked blandly of the politician.

"Nothing to tell *you*," was the reply.

"My bones aren't quite easy yet," said Allen as they were on the way back to the office.

"I think we'd better make a tour of the rounds once more," said Leigh.

Allen consulted his watch. "It's rather late for that. Anyhow, let's ask 'Central' if anybody has rung us up."

Somebody had, but "Central" didn't know who. The men looked at each other vexedly.

"I'll try the *Sentinel* office and police headquarters," said Leigh. The calls proved fruitless, however. "Now let me see if it was the *Clarion* people," remarked Allen, holding out his hand for the receiver.

Just then came the sound of heavy footsteps on the stairs outside.

"A late visitor," muttered Leigh.

Allen threw open the office door. There stood Ahearne.

"Halló, Pat!" cried Leigh. "Glad to see you! Come in; you know Mr. Allen?"

"Oi do, sor," replied the officer; "an' yez hev a snug place uv it here."

"Yes," said Leigh, "and welcome for a friend—like yourself."

"How are things, Pat?" asked Leigh.

"Purty an' well. But av either uv yez been up to the fifth precinct to-night?"

Allen glanced at Leigh as much as to say, "I told you so."

"Mr. Allen has," replied Leigh.

"Did he get the story about 'Father Poldinski' thin?"

"No," said Allen. "What was it?"

"Oi thought yez was out uv it, an' so Oi called yez up, but didn't get yez. So, passing here on me way home, sez Oi, Oi'd hate fr' th' boys to be bate on so

illigant a chunk uv news, an' up Oi comes."

"So?" said Leigh. "What happened?"

"Well, yez know that th' re-lay-shuns av Father Poldinski, th' good man, an' his gintle payrishners hev bin sthtrained for many a month. So t'night a whole lot uv bleatin' Polacks comes to th' fifth, jabberin' that th' 'father' had licked a couple uv hunder uv um tremenjuss, an' had kicked a thousan' into th' street."

"An' in the midst uv it all, with Maloney—he was disk sergeant—tryin' to make some av them talk sinse, bang! an' intirs th' 'father' himself."

"He was cross, oh, my! But whin th' flock seen its shephird thus, it didn't sthop to wish Maloney good night, but just scathered—payin' no attenshun to where an' how an' why it was goin'! The 'father' was blockin' th' dure, but th' windies was handy—both back an' front—an' they was took advantage uv in a way demoralizin' to th' frames an' th' glass uv um."

"Some uv the fleein' ones skipped up th' stairs ladin' to th' quarters uv the resarves, many uv whom was slapin'. 'Tis a traysonable riot, b'yes!' yells Mullins, who was awoke by a large Polack wid black whiskers steppin' on his face. 'The furriners is risen, b'yes!' he blathers; an' wid that there was swingin' uv night-sticks an' drawin' uv guns an' a scene of cruel war."

"What time did it take place?"

"About nine o'clock, Oi should judge. Rawlins got excused for a half-hour at eight o'clock, and on his way back to th' station he noticed bunches uv distrissed Polacks on th' way there. Th' throuble began not long afther he had reported ag'in."

"And Maloney was at the 'desk'?" said Leigh.

"Yis."

"So you thought that we might slip up on this story, and looked us up, did you?" went on Leigh, looking at the big Irishman with friendly eyes.

Ahearne smiled in affirmation. "Maloney is a Burke man, ye know."

"I sha'n't forget this, Pat," said Leigh.

"Nor I," added Allen.

"It's a fight to the death, now," said Leigh.

(To be continued.)



The Railroad Man's Brain Teasers.

A Few Hard Nuts of the Early Spring Variety to Loosen Up the Mental Machinery of Our Mathematicians.

L. D. HASELTINE, of Richmond, Indiana, contributes the following: A siding holds three cuts, or sixty cars. An engineer hauling a train of twenty cars comes to this siding, and wishes to take the middle twenty cars and place the twenty cars he is hauling in the place of the twenty cars he takes out, leaving the end sections in the same position he found them.

The engine can only handle twenty cars at a time; no drop, staking, or roping to be done.

Can this be done? If so, show how many moves.

W. A. Hickey, of Chicago, obliges us with the following:

Given two intersecting railroad lines, a west-bound and north-bound train, each four hundred and forty feet long. Each train starts at the same time from a point one hundred miles from the intersection. The north-bound train runs at a speed of forty-eight miles per hour. At what speed must the west-bound train run to reach and clear the crossing at the moment that the locomotive of the north-bound train touches that point?

The answer to these puzzles will appear in our May issue.

Answer to March Puzzle.

(1.) The car does not slide from under Smith while he is in the air. He does alight in the same spot, because Smith, and everything else carried by the train, partakes of its progressive motion. He is traveling thirty miles an hour when he made the jump, and thirty miles an hour when he completes it.

(2.) The only distance which he could alight behind the "take off" would be what the wind, kicked up by thirty miles an hour, would have blown him. If he jumped straight, not more than two or three inches.

(3.) No.

(4.) If he performed his stunt in the aisle of an enclosed passenger-coach, he would return absolutely to the same spot.



ON THE EDITORIAL CARPET.

Side-Talks With the Man Who Sits in the Cab of the Magazine and Is Commonly Called an Editor.

THE monorail is all very well as a valuable asset of the Sunday newspaper, and maybe when they're through tinkering around a bit they'll get something that might be useful. But, for ourselves, we like to feel all the ten wheels of our engine spanning the standard gage track and whirling along without depending on any spinning top to keep us right side up.

That's why we don't try any freak motive power or rolling stock in the make-up of our monthly train. We know what our readers want, and the only difference month by month is caused by the effort to get a higher polish on the coach-trimmings or a higher steam-pressure in the gage.

Of course, improvements are all right, and we don't intend to miss any chances in that direction, but the things that we put on must have passed all the safety-appliance tests ever formulated by a government of critical readers. It is through this method that we are able, month by month, to promise for the following month a magazine keyed to as high or higher pitch as the one being turned out.

In fact, for May we have had to get a new steam-indicator put in the cab, for we couldn't register the pressure without busting the old one. This is particularly true in the matter of fiction.

We don't think we ever had quite such a collection of authors in one issue as we shall have in the May number. J. R. Stafford, Frank Condon, Robert T. Creel, Robert F. Hoffmann, F. H. Richardson, and Augustus Wittfeld make a train-crew that any fast-flying limited could be proud of.

Mr. Stafford's story is about a refreshing Irishman whose cool impudence is as unconscious as his natural capability is great. Mr. Hoffmann's story will probably be called "Bill Daidy's Chapter," and you'll agree that it is one of the most unusual chapters ever written by a railroad man. In its way it is as refreshing as Mr. Stafford's Irishman.

Mr. Wittfeld is as funny as ever, which is saying something hard to believe.

Besides these stories, we have others equally good, but we fear to mention more, because if in the excitement of making up the

train one or two cars got switched, we don't like to feel responsible for too many disappointments.

In the special articles we have the very sad announcement to make that the May number will see brought to a close "The Evolution of Almost," by Horace Herr. We consider this sketch to have been a distinct "find."

There is in newspaper parlance a much-abused phrase, namely, "human interest." If the writers of some of these human interest stories would read "The Evolution of Almost," we think they would quit out of shame.

We don't remember reading in a long time of so distinctly human and lovable a character as "Almost." He is the male Mrs. Wiggs, and we all feel better, in a very real sense of the word, for having made his acquaintance. He is an addition to railroad literature.

Other features among the special articles for the May number will be number six of the "Letters of an Old Railroad Man and His Son," a series that has taken particularly well; the always delightful "Observations of a Country Station-Agent"; No. 2 of Mr. Rogers's articles on the shops, entitled "Railroad Machines"; commercial traveler yarns told in the smoker, "Old-Timer Tales," and maybe an instructive article on the story of railroad trade-marks.

We have in mind several other fine, high-class pieces of equipment, but we don't want to put on so much fuel here that we'll have to spend the rest of the month hauling out the clinkers, so we guess we'll take the highball and get out of town.

Clear track for May.



A MILLION MILES.

THE Lake Shore and Michigan Southern mail-train No. 35 and extra coal-train No. 5671 were in rear-end collision at a point fourteen miles west of Toledo on January 31. A brakeman, Edward McKinley, of Toledo, was killed, and ten or more of the two train crews were injured. The mail-train, with Engineer A. G. Reynolds and

Fireman M. L. Curtice in the engine, overtook and crushed the caboose and two rear cars of the freight, derailing and partially overturning the engine of the mail-train, according to reports received.

The cause of the wreck, as given by these reports, was the failure of Mr. Reynolds to observe, soon enough, a signal set against the mail, while he was busy trying to reseat an injector check-valve, on the fireman's side of the engine, which had stuck while open.

The need of this repair was urgent. It was a fast and heavy train. The water was rapidly lowering in the boiler and blowing back into the tank.

This is by no means the first time that an engineer's natural anxiety for the proper working of the injectors, upon which his own life, and the lives of others, largely depend while running fast, has led to disaster. And greatly as it is to be hoped, this will not be the last time that such a thing will happen.

We have no intention of entering upon a discussion of the merits or demerits of this occurrence. We are quite willing to leave that to the able disciplinarians and arm-chair philosophers whose duty or vagrant inclinations lead them to do it so willingly. At the same time we would request these lay-philosophers to be careful in pitting their knowledge of the chances and complex duties of an engineer against that of the engineer himself.

What we have chiefly in mind is the broad, human aspect of this unfortunate event, and the unusual circumstances which attended it.

In *THE RAILROAD MAN'S MAGAZINE* for September, 1907, we printed a story under the title, "A Modern Mazeppa." There is in that story of wreck and anguish a paragraph that met a quick response in the hearts of experienced railroad men! We have reason to believe that it carried well its message of finality, fellowship, and implied consolation to many of our readers who are best able to appreciate its healing and sober truth.

Just now, it seems to epitomize the thing we wish to say, and to send forth anew a human note broad and deep enough to meet the need of almost any sorrow that, through mishap, may come to a railroad man and his family.

The paragraph, supposedly spoken by a wounded engineer, is as follows:

"You see," he continued, when he had regained control of himself, "there is so much to remember and to do. In most of the affairs of life, mistakes can be corrected—a little lapse of thought, a little extra weariness, a little error of judgment, a little thing

undone. But with us it is final and complete. There is no recall, no sufficient extenuation."

That is it. There is no recall for the apparently little thing undone, as in the common, daily derelictions of life. Instead, there are sometimes the irreparable loss of life, the maiming and bruising of crews, and, as in the accident west of Toledo, the added pathos of a lifetime's splendid work marred by one fell stroke at its close.

Picture a man, courageous, kindly, soft-voiced, instinctively a gentleman—in short, the highest type of locomotive engineer—in whose mind the welfare of his fellow workers and the passengers entrusted to his care are ever uppermost.

For forty-one years, two and one-half years of which are spent in firing, he runs consecutively at the head of his train, building up a well-nigh perfect record, and looking ahead to that half-dreaded yet much desired honorable retirement to which every engineer now aspires.

At the end of this more than average span of a working life filled with tense activities, calling out the utmost from every faculty, he has arrived, with hair long since whitened by the strain, at the seventy-year milestone of his life.

If we assume that he has run his trip of say one hundred miles a day for only two out of each three days that have gone with the years, he will have run a million miles or more through that which seems to the wayfaring man a fierce and menacing wilderness of sights and sounds. Forty times the distance around the earth at the equator. One hundred and twenty-five times the distance through it there. One ninety-fifth of the distance from earth to sun!

And if for somewhat more than twenty years of this time he has pulled a passenger-train, he will have led some million or so of humans upon their hurrying ways safely through that wilderness of menacing sights and sounds, not one in a thousand of whom has ever so much as seen him, much less touched his hand or acknowledged him a leader among men.

This, in effect, is the almost matchless record of A. G. Reynolds, engineer of the mail, up to January 31, when he stood in the Toledo station just before starting on his run home to Elkhart, Indiana, with his pension papers in his pocket, retiring him for age at the end of this particular run.

Less than fifteen miles out of Toledo, his engine was ditched. There was death and suffering for his fellows and himself, his spotless record was gone like a breath of vapor blown from his cab-window, and his well-earned retirement upon pension was in doubt.

Unnumbered generations of men have read the story of leadership, of courage, of momentary human weakness overmastered by unflagging zeal for duty, which sustained Moses through forty years of striving through the wilderness toward Canaan.

They have read of the one thing undone—the one failure to observe the detail of the spoken law when common human needs were sorely pressing.

And now that time has truthfully revealed the great law-giver in the long perspective of its passing, the thing that lives in the big, human consciousness is the aching, gripping tragedy of the indomitable leader, ripe in years and honor, trudging courageously to the mountain-top of his ambition, only to look over into the Land of Promise which he might not enter.

Something of this feeling, we believe, will attach to the consideration of the deplorable accident in point, especially among those who best understand the possibility of such happenings in the ordinary course.

At the time of this writing, there is some doubt being expressed as to the eligibility of an engineer to pension for age under the circumstances above recited. There is, however, an additional fact which may be construed in favor of Mr. Reynolds.

It is that he had reached the age-limit of seventy years on the day before the accident, and was, it is said, finishing out the month of January with one last return run to his home station, at his own request, and, of course, with the consent of his superior in authority.

All in all, therefore, we believe we express the sentiment of many railroad men and others, in hoping that, long before this appears in print, this veteran engineer who was treated so shabbily by Fate in the very last hours of his great work may have been honorably enrolled among the pensioned veterans; and that his hurts of body and thought may, with those of the others who likewise suffer, be well upon the way of healing.



"MOTHER'S SIGNAL."

ALBERT CAIN, an old reader of this magazine, has sent us from his home in Cochran, Indiana, the words of the following poem, "Mother's Signal," which is commemorative of John Little, who lost his life in a wreck at Cochran, July 30, 1894, on the B. and O. S. W.

John Little was an engineer,
Careful, skilful, without fear;
A widowed mother was his care
And everything he had to share
With her was shared in equal part,
For John loved her with all his heart.

Each day John Little's train went through,
His "Mother's Signal," Little blew,
And all our town this signal knew,
And well we learned to love it, too.

His train was always run on time,
His love for mother was sublime.
And whether passing east or west
He signaled her whom he loved best.

At first this signal, loud and shrill,
Pierced every one with noisesome thrill;
But after while our whole town knew,
What meant the signal Little blew,
And loved to hear his engine's cry
Each day as Little's train flew by.
So reg'lar Little's train went 'long,
Your watch, with it, could not be wrong.
And thus for years this engineer,
Careful, skilful, without fear,
Went running through, now east, then west—
On all the road he was the best—
And when his mother's town he passed,
John Little blew his loyal blast,
And all the town, as he flew by,
Rejoiced to hear his engine cry
His signal sweet to mother's ear,
And more we loved it, year by year.
'Twas music sweet to ev'ry ear,
And sweeter it grew ev'ry year—
Because it told of filial love,
Most certain of reward above.

At last there came a fatal day,
And Little's spirit passed away!
And nevermore within her town
Is Little's mother's signal blown.
On open switch a freight-train lay,
And John's train had the right of way,
Whose fault? Not his! But in a flash,
There came an awful—awful crash
And wreck such as is seldom known—
And noble Little's soul had flown.
There, underneath his engine bound,
John Little's body, crushed, was found,
The whistle-valve his hand held fast.
One moment more, as he flew past
His mother's home, his signal-call
Would have cheered her and thrilled us all.
And Little's mother, scarce a mile
Away was waiting with a smile,
To hear her boy blow her his love,
When Little's spirit soared above.
His face glowed with a heavenly light,
But Little's soul had taken flight.
Now nevermore that signal will
Echoes wake from hill to hill,
But Lord! Our God! Father in heaven!
If he had sins be they forgiven!
For faithfulness like his—and love—
Must surely find reward above.



BOUQUETS AND KICKS.

ALTHOUGH we are regularly running under two hundred pounds working pressure, we like to occasionally ease up and gather in the kind and unkind words with which our readers are wont to strew our

And mocked at God in your hellish pride;
 You've paid full fare, so I carry you through,
 For it is only right that you get your due,
 For every laborer is worth his hire,
 So I land you safe in my lake of fire,
 Where my fiery imps will torment you forever,

And all in vain you will sigh for a Savior."
 Then Tom awoke with an awful cry;
 His clothes soaked wet and his hair standing high.

And he prayed as he had never prayed before
 To be saved from hell and the devil's power.
 And his crying and praying was not in vain,
 For he never more rode on the hell-bound train.

TELL ME NOT!

TELL me not in box-car numbers
 Life is but an empty dream.
 If you're working for a railroad,
 Oh, how happy life must seem!

Life is business on a railroad,
 Where you have to do things right.
 Do just what the yardmaster tells you,
 Labor hard from morn till night.

Lives of railroad men remind us
 We must never be sublime,
 But when going leave behind us
 Garnishes upon our time.

Garnishes which perhaps some other
 Wandering on this stormy main—
 Some forlorn and wayward brother—
 Seeing shall pass on again.

When our working days are over,
 And our harvest days are spent,
 With our shoes all worn and dusty,
 With our backs all tired and bent.

We shall near the gates of heaven,
 But inside we'll never get,
 For St. Peter there will tell us,
 "We've no railroad men here yet."

LIFE'S RAILWAY TO HEAVEN.

BY CHARLIE D. TILLMAN.

(Copyrighted, 1910, by Charlie D. Tillman.)

LIFE is like a mountain railroad,
 With an engineer that's brave;
 We must make the run successful
 From the cradle to the grave;
 Watch the curves, the fills, the tunnels,
 Never falter, never quail;
 Keep your hand upon the throttle,
 And your eye upon the rail.

CHORUS.

Blessed Savior, Thou wilt guide us
 Till we reach that blissful shore,
 Where the angels wait to join us,
 In Thy praise forevermore.

You will roll up grades of 'trial,
 You will cross the bridge of strife.
 See that Christ is your conductor,
 On this lightning train of life.
 Always mindful of obstruction,
 Do your duty, never fail.
 Keep your hand upon the throttle,
 And your eye upon the rail.

REPEAT CHORUS.

You will always find obstructions,
 Look for storms of wind and rain,
 On a fill, or curve, or trestle,
 They will almost ditch your train.
 Put your trust alone in Jesus,
 Never falter, never fail;
 Keep your hand upon the throttle,
 And your eye upon the rail.

REPEAT CHORUS.

As you roll across the trestle,
 Spanning death's dark, swelling tide,
 You behold the union depot,
 Into which your train will glide.
 There you'll meet the Superintendent,
 God, the Father—God, the Son,
 With the hearty, joyous plaudit,
 "Weary pilgrim, welcome home!"

REPEAT CHORUS.

MY DAD'S THE ENGINEER.

BY CHARLES GRAHAM.

(Copyright, 1905, by Henry J. Wehman. All rights reserved.)

We were none of us thinking of danger,
 As the train sped on in the night,
 'Till the flames from a burning forest
 Made the passengers wild with fright.
 Then a tiny maid near a window, with a smile, said:
 "There's nothing to fear;
 I'm sure that no harm will befall you—
 My dad's the engineer."

REFRAIN.

"Daddy's on the engine, don't be afraid;
 Daddy knows what he is doing," said the little maid;
 "We'll soon be out of danger, don't you ever fear;
 Every one is safe, because my Dad's the engineer."

With the sparks falling closely about us,
 Through the flames we sped on so fast,
 And the brave little maid's father
 Brought us through the danger all safe at last;
 And the proud, sweet face of his lassie,
 And the words of the calm, little dear,
 Will live in my mem'ry forever—
 "My dad's the engineer."

REFRAIN.

Warm as the summer beach



If anybody needs or deserves rooms just right to live in, to play in, to sleep in, it is the little folks. In spite of all precautions, the old-fashioned heating methods soon begin to leak or force ash-dust and coal-gases into the living rooms, and the loved ones are made to breathe burned, devitalized air, totally unfit for the lungs. Whereas Hot Water or Low Pressure Steam heating with

AMERICAN & IDEAL RADIATORS & BOILERS

will supply pure, warm air to every room in the house in all kinds of weather. These outfits are used exclusively in hospitals, sanitariums, laboratories, colleges, greenhouses, etc., where correct heating and ventilation are an absolute necessity. IDEAL Boilers and AMERICAN Radiators are made in such small sizes, yet with equal completeness, that they are now put into thousands of cottages, houses, stores, etc., at prices easily within reach of all. These outfits soon save their cost by cutting down the fuel bills and absence of repairs; while their cleanliness halves the housework and saves much wear on carpets and furnishings.

Do not wait until you build that new house which you may have in mind. See that your present home is warmed as you know it should be, and it will rent for 10% to 15% more, or sell quickly at a higher price when you leave it. IDEAL Boilers and AMERICAN Radiators are a high-paying investment—not an expense.



A No. C-24 IDEAL Boiler and 555 ft. of 38-in. AMERICAN Radiators, costing the owner \$250, were used to Hot-Water heat this cottage.



A No. 3-22 IDEAL Boiler and 400 ft. of 38-in. AMERICAN Radiators, costing the owner \$195, were used to Hot-Water heat this cottage.

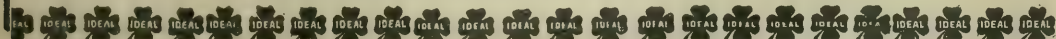
At these prices the goods can be bought of any reputable, competent fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other conditions.

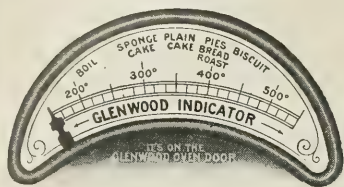
Prices are now most favorable, and you get the services of the most skillful fitters. Don't put it off till the soon-coming Fall—write us to-day for free valuable book which tells fully all the hows and whys of IDEAL-AMERICAN heating.

Public Showrooms
all large cities

AMERICAN RADIATOR COMPANY

Write to Dept. J
CHICAGO





Glenwood Patent Oven Heat Indicator.

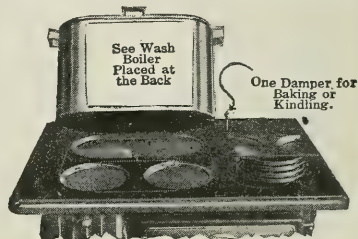
Cabinet Glenwood

Combination Coal, Wood and Gas Range.

No fussy ornamentation or fancy nickel on the Plain Cabinet Glenwood. Just the natural black iron finish. "The Mission Style" applied to a range. A room saver too—like the upright piano. Every essential refined and improved upon.

The Sectional Top prevents warping, and is so planned that by changing the cross-shaped castings that hold the covers (see illustration) a wash-boiler may be placed at back of range, leaving all front holes free for cooking.

The Oven, Damper, Grates and Clean-out are each worthy of special mention.



The Glenwood Gas Range Attachment consisting of Oven, Broiler and Three Burner Top is made to bolt neatly to the end of the coal range when a combination coal and gas range is desired.

The heat in both coal and gas ovens is registered by the wonderful Glenwood patent oven heat indicator which shows at a glance when to put food in the oven.

If a large amount of baking is required, both the Coal and Gas ovens can be operated at the same time using one for meats and the other for pastry. Being very compact it saves room in the kitchen and

"Makes Cooking Easy."



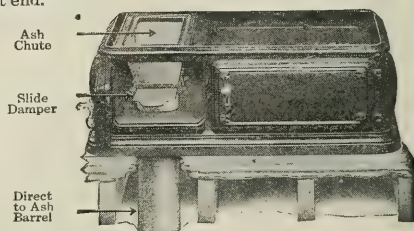
This range is also made with elevated gas oven instead of end style, shown above, or if gas is not desired, with or without reservoir on right end.

The Glenwood Ash Chute may be used instead of a pan, when kitchen is on first floor. This wonderful convenience saves lugging ashes, as they are dropped direct to ash barrel in basement without a particle of dust or dirt in kitchen (see illustration).

Write for handsome booklet of the plain Cabinet Glenwood Combination Coal, Wood and Gas range, mailed free.

WEIR STOVE CO., TAUNTON, MASS.

Manufacturers of the celebrated Glenwood Ranges, Parlor Stoves, Furnaces, Water and Steam Boilers.



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to earn \$25 to \$50 weekly in the **AUTOMOBILE BUSINESS**

CHAUFFEURS, automobile salesmen and repairmen get big pay for pleasant, congenial work, *because the demand for trained men exceeds the supply.* We have taught hundreds of young men without previous mechanical experience, and we can teach you in ten weeks if you study a few hours a week. The work is interesting. You see everything worth seeing on tours—you go everywhere. Our simple course by mail guarantees efficiency because all our

To Automobile Owners and Garages

When you want competent chauffeurs or men for any class of automobile work, write to us. We can put you in touch with the man you want.

instruction is personal. Our graduates are everywhere, earning \$25.00 a week and up. Ask *them* about us and about the positions they have secured.

Answer This Ad Today

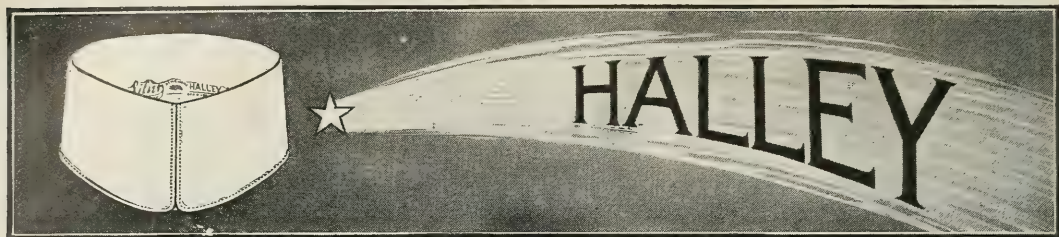
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*The Original
Automobile
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A New and Becoming Style in

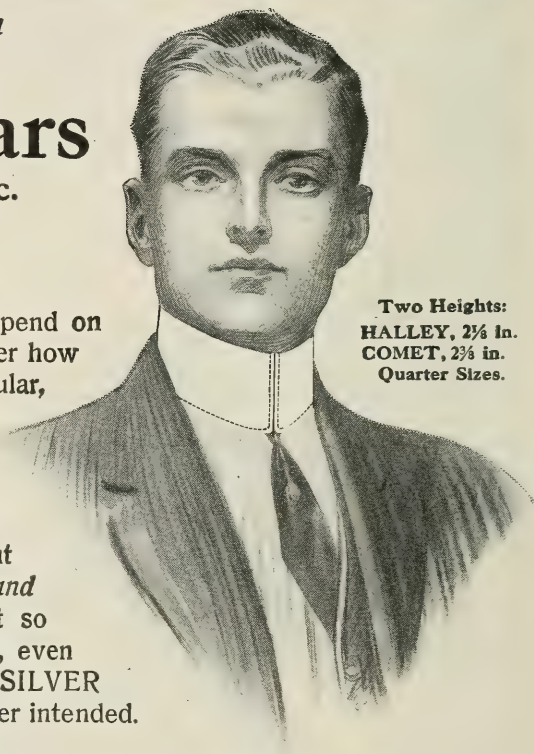
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BRAND 2 for 25c.

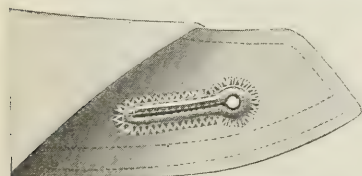
The Only Collars with
Linocord Endless Buttonholes

In collars the *Style, Fit and Comfort* depend on having strong, sound buttonholes. No matter how good the collar may be in every other particular, once a buttonhole is stretched or broken, you have a gaping, slovenly, ill-fitting collar.

THE LINOCORD BUTTONHOLE is made with an eyelet like the buttonhole in your coat, hence is pliable, easy to put on and off. It is *reinforced all around* with a *Stout Linen Cord*, which makes it so strong it can't possibly stretch or break, even with the hardest or longest wear—a SILVER Collar will always fit and look as the designer intended.



Two Heights:
HALLEY, 2½ in.
COMET, 2¾ in.
Quarter Sizes.



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The latest word in Men's Fashions. It embodies the dicta of the foremost fashion authorities with reference to every item of men's apparel. It not only tells what to wear but also what not to wear. Fully illustrated. Invaluable for reference. Yours for the asking.

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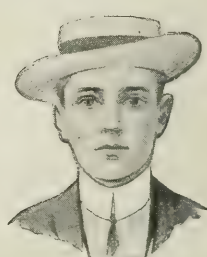
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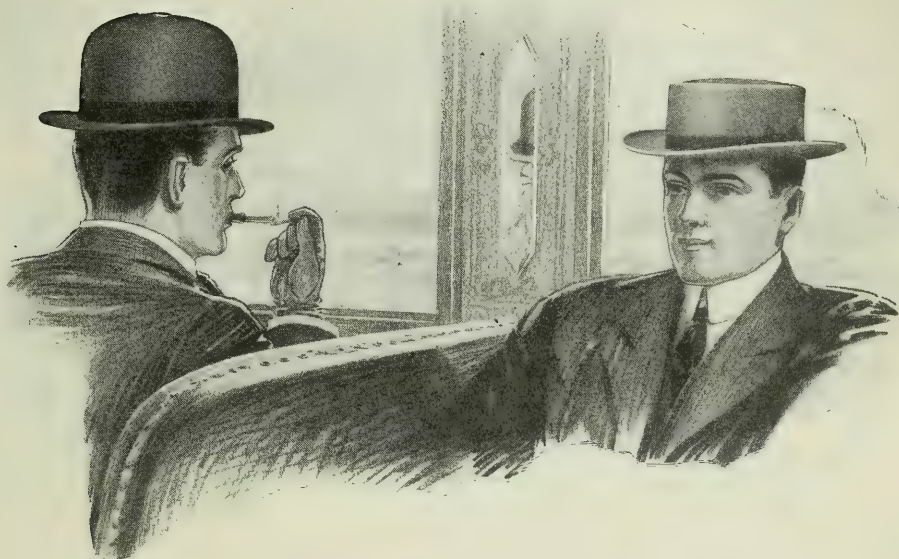


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The very newest shapes for spring wear—the style leaders of them all—are shown in Hawes, von Gal Hats. Note especially the beauty of the telescope soft hat—a style becoming to almost every man.

Compare a Hawes, von Gal Hat—either stiff or soft—with a hat of any other make—the quality is apparent. Ask your dealer about the guarantee. Prices, \$3, \$4 and \$5.

We are Makers of the *Hawes* Celebrated \$3.00 Hats

If not at your local dealer's, write for our new Spring Style Book "R." We will fill your order direct from the factory if you will indicate style wanted and give your hat size, your height, weight and waist measure. Add 25 cents to cover cost of expressage.

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Retains its fresh, snappy, lustrous appearance and rich coloring after repeated laundering. Always fashionable, cool, healthful.

By the yard in over 50 shades at all retail stores.

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OUR EASTER PRIZE OFFER

A Prize for 100 Persons Who
Write a Reason for Preferring

SHIRLEY PRESIDENT SUSPENDERS

Your letter, giving one reason "Why a Man Should Prefer SHIRLEY PRESIDENT SUSPENDERS" may win one of the 100 Prizes.

THE PRIZES:

1st prize	-	-	-	-	\$50.00 in money
2nd prize	-	-	-	-	40.00 in money
3rd prize	-	-	-	-	30.00 in money
4th prize	-	-	-	-	25.00 in money
5th prize	-	-	-	-	20.00 in money
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21st to 50th Prizes
1 pair silk SHIRLEY PRESIDENT SUSPENDERS,
with gilt trimmings, value \$1.

51st to 100th Prizes
1 pair SHIRLEY PRESIDENT SUSPENDERS
(Regular 50c. stock).

We want a letter from everyone in every walk of life telling what he believes to be the **one best reason** "Why a Man Should Prefer—

SHIRLEY PRESIDENT SUSPENDERS."

We will pay \$50.00 in Cash for the Best Letter of 200 words or less, answering this query. And \$215.00 more will be apportioned among the 19 next closest competitors.

Besides these cash prizes, we will distribute 80 pairs of SHIRLEY PRESIDENT SUSPENDERS to eighty other contestants.

This contest is wide open to anyone, anywhere. There is no fee, no condition, no obligation. Simply state on one side of your paper what you consider the One Best

Reason "Why a Man Should Prefer SHIRLEY PRESIDENT SUSPENDERS."

Then sign your name, indicate plainly your address, and give the name of your Clothing Dealer, or Haberdasher, and **his address**. It is essential that we have the dealer's address, for the prizes will be distributed through him **whether he sells SHIRLEY PRESIDENT SUSPENDERS or not**.

Give one reason only. Make your letter short—not more than 200 words. (Date, Address, Signature and Dealer's Name **not** being counted as words.) Forget grammar and avoid "advertis" adjectives. What we want is a simple expression of your reason for preferring SHIRLEY PRESIDENT SUSPENDERS to all other kinds.

CONTEST CLOSES APRIL 15th

—and all letters postmarked after midnight of the 15th will be disqualified. Watch our advertisements closely after that date. P. F. Collier & Son and The Frank A. Munsey Company will each furnish an expert to assist Mr. C. F. Edgerton, of The C. A. Edgerton Manufacturing Company, in selecting the Best Letters. The names of the winners will be announced and prizes awarded about May 10th.

There are plenty of Reasons for preferring SHIRLEY PRESIDENT SUSPENDERS, but what particular feature appeals to you—and why? Tell us in a Contest Letter.

The C. A. Edgerton Mfg. Co.
SHIRLEY PRESIDENT SUSPENDERS

1769 MAIN STREET,

SHIRLEY, MASS.

“Onyx” Hosiery

For Men

Good Men and True Everywhere

Learn how and where to get Good Hosiery, not for to-day,
but for all time

Commit to memory the **TRADE MARK**, illustrated above, stamped on every pair of “Onyx” Hosiery, so that you cannot fail to get the satisfactory kind. No Trade Mark ever stood for such Honest Value as this.

The New “Onyx” Doublex Quality

will interest you. It consists in the re-enforcement of heel and toe with a specially prepared yarn of extra strength, doubling the wearing Quality. All weights from medium to sheerest fabric, in Cotton, Lisle, Silklisle and pure Thread Silk, have this important feature, and shown in great color range.

Colors—Black, White, Tan, Paris Tan, French Grey, London Smoke, Cadet, Navy, Reseda, Amethyst, Purple, Ruby, in fact all shades to match any color scheme desired.

A few of the many excellent Qualities are described below—Try them—You will place the “Onyx” Brand on a par with your favorite brand of cigar.

Make it your Business to get a pair of “Onyx” Hose and know what good hosiery is really like

E 350 Men's “ONYX” Black and Colored Gossamer Lisle “Doublex” Heel and Toe, very superior quality, and exquisite weight for Spring wear 50c a pair

E 325 Men's “ONYX” Black and Colored Silklisle “Doublex” Heel and Toe, re-enforced sole, feels and looks like silk; wears better; without exception the best value obtainable 50c a pair

E 310 Men's “ONYX” Black and Colored Lisle “Doublex” Heel and Toe, double sole, special woven six thread heel and toe, and four thread all over 50c a pair

930/S Men's “ONYX” Black and Colored Silklisle with self clocks, “Doublex” Quality; re-enforced heel, sole and toe 50c a pair

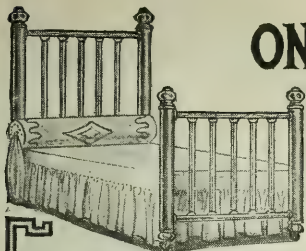
E 330 Men's “ONYX” Black and Colored Silklisle “Doublex” Heel and Toe, re-enforced sole; soft, lustrous, silky, gauze weight; the equal of this quality does not exist 75c a pair

E 311 Men's “ONYX” Black only “Doublex” Heel and Toe, double sole; finest quality sea island combed Lisle; the sheerest weight made; will be a revelation in fineness of texture and durability 75c a pair

620 Men's “ONYX” Black and Colored Pure Thread Silk inner lisle-lined sole; doubles life of hose; one of the most reliable silk numbers, \$1.50 a pair

If your dealer cannot supply you, we will direct you to nearest dealer, or send, postpaid, any number desired. Write to Dept. 93.

Lord & Taylor Wholesale Distributors New York



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BRASS BED

Massive ALL-BRASS BED, large 2-inch posts, any width desired, heavy genuine French lacquer, guaranteed 10 years, in either bright or satin finish; most extraordinary value. **Terms \$2 cash, \$1 month**

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Largest, oldest and best known homefurnishing concern in America. Established 1855—55 years of success—22 big stores—over 2,000,000 homes furnished—over 700,000 customers today—capital and resources larger than that of any similar concern in the country.

IT WOULD COST more
I than \$11,000 to send a
post-card to the million-and-
more homes that read "The
Argosy Combination" every
month.

Advertisers who *know* are
using this short-cut

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	Rate per Line	
The Argosy	\$1.50	Special Combination Rate \$3.00
The All-Story Magazine	1.00	
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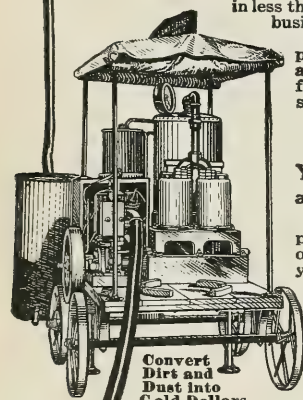
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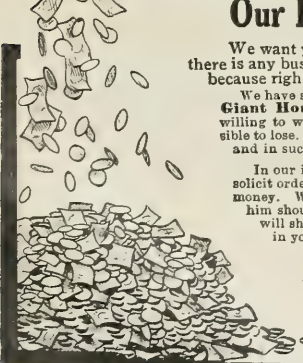
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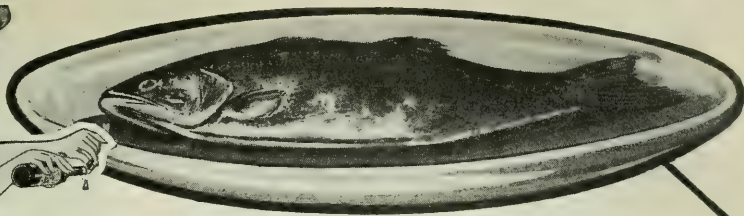
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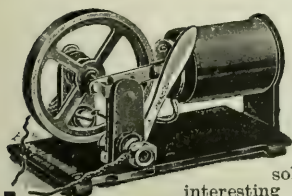
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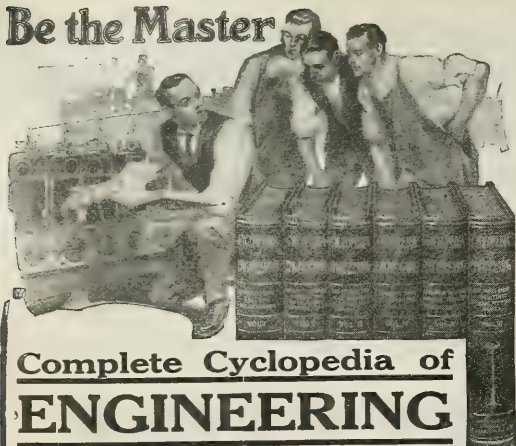
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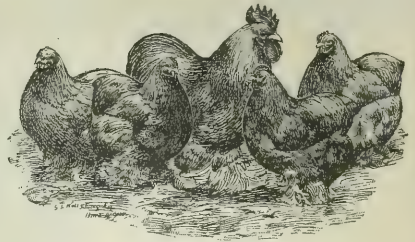
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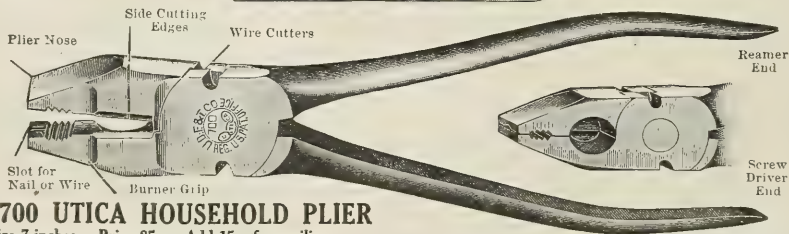
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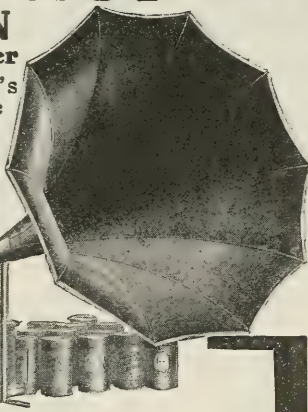
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We are the original and largest concern selling merchandise to the people on terms to suit their incomes. Don't hesitate another minute—send a postal for the big, handsome encyclopedia. Our prices are lower than cash stores; our terms are the most reasonable to be found anywhere, our dealings fair and square.

Our business aggregates millions annually, so you can buy from us cheaper than from any similar establishment.

Special

Finest, man-tailored spring, 1910 model, nobby business suit; values double; extra special; on half year's credit—

\$12⁵⁰

Send No Money

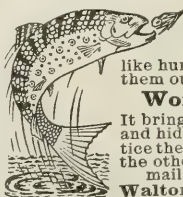
We do not ask a penny of your money until you have examined, tried on and compared our garments with any to be found anywhere in the world. You take no risk, for your own eyes judge our values.

Lose no time in writing for the book—you will be interested and pleased when you see it. Write at once, addressing as follows:

WOOLF'S, Inc., 2206-8 W. 12th St., Chicago, U. S. A.

The world's largest and original mail-order credit establishment.
Founded 1874.
Caution: We have no agents or local representatives.

BARODA DIAMONDS. Flash Like Genuine
ANY STYLE at 1/40 the cost—IN SOLID GOLD RINGS
Stand acid test and expert examination. We guarantee them. See them first—then pay.
Special Offer—14k Tiffany ring 1 ct. \$5.98. Gents ring 1 ct. \$6.98. 14k Stud 1 ct. \$4.88. Sent C. O. D. for inspection. Catalog FREE, shows full line. Patent ring gauge included, 10c. The Baroda Co., Dept. A12 338 N. State St., Chicago



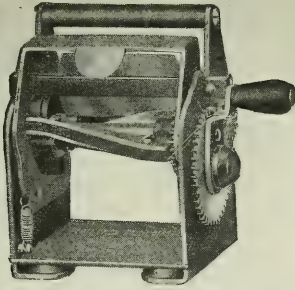
Fish Bite

like hungry wolves and keep you busy pulling them out, whenever, or wherever you use our

Wonderful Fish-Luring Bait.

It brings the finny beauties from their haunts and hiding places when no other bait will entice them. You catch a big string of fish while the other fellow is waiting for a bite. Sent by mail prepaid for 25cts. Booklets Free.

Walton Supply Co., Dept. G, St. Louis, Mo



Sharpen Your Blades

with the
Perfection Automatic Razor Strop
For Safety or Ordinary Blades

You will be amazed at the difference in the edge. It's easy too. Just turn the crank—every revolution gives **six complete stroppings**. It is just like the **expert's twist of the wrist**—the true principle of good stropping. It makes the old blades better than new and new blades better than ever. Write for free trial offer. If you desire, send name of your dealer. **Name style of razor, if safety.** Satisfaction positively guaranteed or money back.

Perfection Razor Strop Company

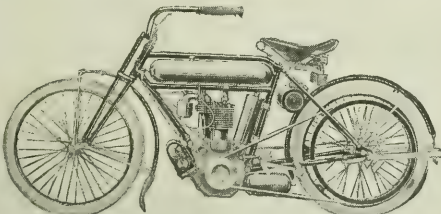
95 Dearborn St., Room 53, Chicago

Pacific Branch
Dyas-Cline Company
Los Angeles,
California

Eastern Branch
1 Madison Avenue
Metropolitan Life Ins. Bldg.
New York City

1 cent for 4 miles on a motorcycle

The motorcycle combines the attractiveness of bicycling with the comfort of automobiling. It offers you the cheapest method of mechanical transportation ever devised— $\frac{1}{4}$ of one cent per mile pays for both fuel and oil. It provides just enough physical exercise in the open air to stimulate—not fatigue.



M.M. 4 H. P. Magneto Single, Price \$225

Investigate the claims we make for motorcycling in general and for the M. M. motorcycle in particular. The M. M. is the leader, and 1910 models are better than ever. Let us send you catalog and other literature.

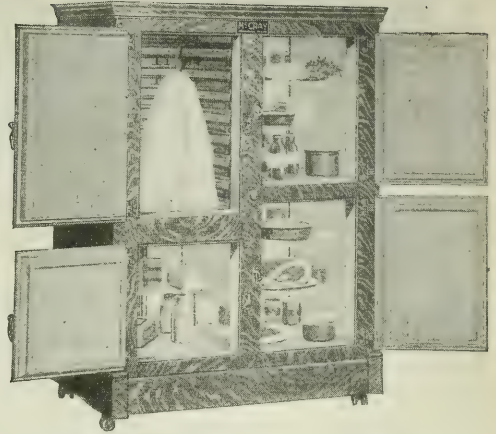
AMERICAN MOTOR COMPANY

(Member Motorcycle Mfrs. Ass'n.)

722 Center St., Brockton, Mass.

BRANCHES: Boston, 173 Huntington Ave.; New York, 10 W. 60th St.; Buffalo, 895 Main St.; Chicago, 2121 Michigan Ave.; Dallas, Tex., M. M. Bldg., So. Ervay St.; Los Angeles, 1634 So. Main St.

AGENTS EVERYWHERE



What do you find when you open your refrigerator? Do you find clean, sweet, wholesome food and nothing else; or do you find partially spoiled food, moisture and unpleasant odors? If you find the latter it means your refrigerator is unsanitary—a possible source of sickness to yourself or family. Do not temporize if you have this kind of a refrigerator. Investigate at once the merits of the famous

McCray Refrigerators

—the kind that are clean and wholesome because there is always a constant circulation of cold, dry air through every food compartment as long as a pound of ice remains. Ordinary refrigerators cannot keep food the way the McCray does, because ordinary refrigerators do not have the McCray patented construction. **TRY YOUR ICE BOX** by placing salt in it for a few hours. Note how quickly the salt becomes damp and lumpy; then write for booklet which tells why it will keep dry in a McCray, and why it is the safest as well as the most economical refrigerator you can buy.

Write for the Free Book

"How to Use Leftover Foods"—by Elizabeth O. Hiller, and for any of these free catalogs:—No. A. H., Built-to-order for Residences; No. 87, regular sizes for Residences; No. 67, for Groceries; No. 59, for Meat Markets; No. 48, for Hotels, Clubs and Institutions; No. 72, for Flower Shops.

McCray Refrigerator Company

84 Lake Street

Kendallville, Indiana

WANTED AGENTS - SALESMEN WANTED MANAGERS

STARTLING OPPORTUNITY TO MAKE MONEY FAST. AT HOME OR TRAVELING---ALL OR SPARE TIME

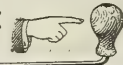
Experience not necessary. Honesty and willingness to work all we ask. We will give you an appointment worth \$50 to \$75 every week. You can be independent. Always have money in abundance and pleasant position selling greatest labor saving household invention brought forth in fifty years. **LISTEN:**—One man's orders \$2,650.00 one month, profit \$1,650.00. Sylvester Baker, of Pa., a boy of 14 made \$9.00 in 2½ hours. C. C. Tanner Ia., 80 years old, averages five sales to seven calls. See what a wonderful opportunity! **Room for YOU**, no matter what your age or experience, or where you are located—if you are square and will act quick. But don't delay—territory is going fast. Read what others are doing and be influenced by their success. **WORK FOR US AND GET RICH.**

"I do not see how a better seller could be manufactured," writes Parker J. Townsend, Minn. "Called at twenty homes, made nineteen sales,"—E. A. Martin, Mich. "Most simple, practical, necessary household article I have ever seen" says E. W. Melvin, San Francisco. "Took six dozen orders in four days,"—W. R. Hill, Ill. "Went out first morning, took sixteen orders,"—N. H. Torrence, New York. "Started out 10 a. m., sold thirty-five by 4 o'clock,"—J. R. Thomas, Colo. "Sold 131 in two days,"—G. W. Handy, New York. "I have sold goods for years, but frankly, I have never had a seller like this,"—W. P. Spangenberg, N. J. "Canvassed eleven families, took eleven orders,"—E. Randall, Minn. "SOLD EIGHTEEN FIRST 4½ HOURS. Will start one man working for me today, another Saturday,"—Elmer Menn, Wis.

These words are real—they are honest. Every order was delivered, accepted and the money paid in cash. Every letter is right here in our office, and we will give the full postoffice address of any man or woman we have named if you doubt. This is a big, reliable, manufacturing company, incorporated under the laws of the State of Ohio, and every statement we make is absolutely sincere and true. **YOU CAN MAKE THIS MONEY:** You can make

\$3000.00 in 3 Months

TURNCRANK TO WRING



THE NEW EASY WRINGER MOP

selling this great invention—**The Easy-Wringer Mop**—the biggest money maker of the age. Think of it!

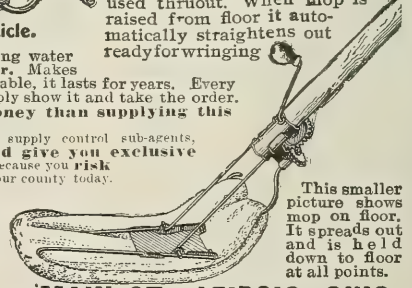
A Self-Wringing Mop. No putting hands into the dirty water. No aching backs. No slopping against woodwork. No soiled clothes. No contracting deadly disease from touching hands to filth and germs that come from floor. Can use scalding water containing strong lye. Two turns of crank wrings out every drop of water. Makes house-keeping a pleasure—Makes the day happy. Simple, practical, reliable. It lasts for years. Every woman is interested—and buys. No talking necessary—it sells itself. Simply show it and take the order. Could you imagine an easier, quicker, better way to make money than supplying this demand already created?

We want more agents, salesmen, managers, to fill orders, appoint, supply control sub-agents, 150 per cent profit. No investment required. We own patents and give you exclusive territory, protection, co-operation, assistance. You can't fail, because you risk nothing. **HUNDREDS ARE GETTING RICH.** Act quick. Write for your county today. **WE WANT A THOUSAND MEN AND WOMEN.**



New Low Priced Household Article.

The above cut shows mop wrung up dry, and pictures the good, strong, substantial material used thruout. When mop is raised from floor it automatically straightens out ready for wringing.



This smaller picture shows mop on floor. It spreads out and is held down to floor at all points.

Send no Money: Only your name and address on a postal card for information, offer and valuable booklet **FREE** Tomorrow belongs to the one behind—the opportunity is open **TODAY.** Write your name and address clearly, giving name of county.

THE U. S. MOP COMPANY,

913 MAIN ST., LEIPSI, OHIO.

LEARN TELEGRAPHY BOOKKEEPING OR SHORTHAND BY MAIL—AT YOUR OWN HOME

Anyone can learn it easily in a few weeks. We are unable to supply the demand for telegraph operators, bookkeepers and stenographers. No charge for tuition until position is secured. Write today for particulars, stating course desired.

MICHIGAN BUSINESS INSTITUTE.

824 Institute Building, Kalamazoo, Mich.



I Teach Real Salesmanship

You can be a salesman. Increase your power to convince others, earn from \$1,200 to \$10,000 a year. I am the only man teaching salesmanship who is sales manager of a wholesale house and an official of United Commercial Travelers of America. Write for my free magazine "The Salesman," and how you can become a Traveling Salesman. My graduates hold paying positions and I can assist YOU to profitable employment. Most practical, highly endorsed course in the world. No matter where you live, or what your occupation, write me today.

The Trotter School. Dept. 7, Kansas City, Mo.

DIAMONDS ON CREDIT

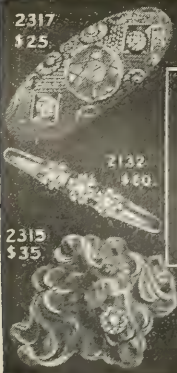
20% DOWN—10% PER MONTH

Why wait for your Diamond until you have saved the price? Pay for it by the Lyon Method. Lyon's Diamonds are guaranteed perfect blue-white. A written guarantee accompanies each Diamond. All goods sent prepaid for inspection. **10% discount for cash.** Send now for catalogue No. 97.

J. M. LYON & CO.,

Established 1843

71-73 Nassau St., New York



AGENTS, HURRY! IT'S GREAT!

GET AN APPOINTMENT -- \$50 TO \$100 A WEEK

SENSATIONAL OPPORTUNITY FOR MAKING MONEY—MEN AND WOMEN



Every home needs—wants—must have it. Women buy eagerly. Agents excited. Orders coming thick and fast. Brand new. Field untouched. Nothing ever like it before. **Never such a seller.** Never such a wonderful invention. Be quick—don't wait—experience unnecessary. Just listen! One woman made **\$24 first half day.** W. H. Morgan, Pa.: "**Sold 45 Cleaners in 25 hours.**" Have sold 2 out of 3 persons canvassed." Marvelous results reported from every state. Read on about this great modern household invention. Millions have wanted—needed—for years. Only enjoyed by rich. But here at last for rich and poor. **New Home Vacuum Cleaner**—Blessing to all. **Rushing, whirling, sucking air draws dirt, dust, germs from carpets, rugs, matting, while they remain on floor.** Strange—bewildering—phenomenal. No electricity—no motor—no power. Operated in any home by child or frail woman. Weighs 8 lbs. Different from anything ever seen. Purifies atmosphere—wards off disease—stops doctor bills. Sucks dirt from carpets, rugs, matting—**from crevices, beneath radiators, furniture, behind doors, closets, etc.** Sold on demonstration. Women can't resist. Shown in three minutes. Sold in five. Then on to the next. Women praising, make sales easy. **Saves drudgery, cleaning, dusting.** Saves taking up carpets—saves time and money. No more brooms, brushes, dust cloths. No more backache. Never such a money maker—never such a blessing to women. Never such a chance to make money easy—quick. Big profit on every sale. But you must hurry. Agencies going. Everybody on the jump. C. E. Goff, Mo.: "**Sold 5 Vacuum Cleaners last Saturday**—my first attempt." Gustave Anderson, Minn.: "Enclosed find order for 12 Vacuum Cleaners. Ship prompt. **One man sold a dozen 3 days.**" F. I. Pierce, N. Y.: "Wife more than pleased with Home Vacuum Cleaner. It does all and more than you claim for it." Prof. Geo. S. McDowell, Pa.: "**Took \$1/2 ounces fine dirt from carpet 10 x 13 feet.**" L. Banville, Ohio: "The New Home Cleaner greatest ever. Have arranged for demonstrations in stores." And so it goes—all eager, all say "It's great." So hurry. You can't fail. Get busy now. Grand invention—great seller. **(Hurrah! Join the money makers.)** Get this money. Don't be satisfied with small wages. Don't just exist. **How splendid to always have money in abundance. Break away!** Send today. Don't write a letter—just a card. Only write—that's all. Begin now to make money. Frank Williams, Nebr.: "Home Vacuum Cleaner a dandy; **works to perfection**—without raising dust."

READ HOW THE MONEY ROLLS IN

Gain freedom from drudgery, long hours, bossism, job hunting. We want more Agents, Salesmen, Managers—Men and women, at home or traveling, all or spare time, to fill orders, appoint, supply, control sub-agents. You can't make a mistake. Listen! John Logan gave up \$12 job driving team, now makes \$50 weekly. Writes "Sold 15 cleaners today. Success is sure." That's the way they all read—So hurry and write. **SEND NO MONEY**—Just your name on a card. We'll send full instructions and offer good territory. We'll help; we'll start you making money. **Write.**

DON'T WORK FOR WAGES

Logan gave up \$12 job driving team, now makes \$50 weekly. Writes "Sold 15 cleaners today. Success is sure." That's the way they all read—So hurry and write. **SEND NO MONEY**—Just your name on a card. We'll send full instructions and offer good territory. We'll help; we'll start you making money. **Write.**

R. ARMSTRONG MANUFACTURING CO., 671 Alms Building, CINCINNATI, OHIO

Mullins Boats Used by the Government

This cut shows our 26-foot, 40 horse-power Launch in Government service at the Naval Testing Grounds, Stump Neck, Md. The adoption of the Mullins Pressed Steel Boat by the U. S. Government shows what Uncle Sam—one of the world's largest boat buyers—thinks of the steel boat.

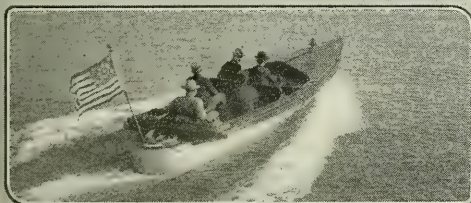
MULLINS STEEL BOATS CAN'T SINK

They are **SAFE** because they have air compartments like a life boat. They are **fast** because the steel hulls **can't wat-rlog**. They are **dependable** because they have a new type of two-cycle engine that **can't back-fire**, no matter how slow you run it. Seven Models—16, 18, 20, 22, 24 and 26 feet.

WRITE FOR OUR FREE CATALOG

which describes these models and their exclusive improvements, such as One-Man Control, Silent Underwater Exhaust, Inside Stuffing Box, Rear Starting Device, Improved Reversing Gear, Outside Gasoline Intake, etc. We manufacture a complete line of Steel Row Boats, Hunting and Fishing Boats, Marine Engines.

324 FRANKLIN ST. **THE W. H. MULLINS CO. SALEM, O., U.S.A.**
The Largest Boat Builders in the World.



PAY NOW THEN

We will send for your approval a genuine $\frac{1}{4}$ karat, commercial white, perfect diamond, in any style 14 karat solid gold mounting, **express prepaid, for \$30—\$5 down and \$3 per month; or a $\frac{3}{8}$ karat diamond of like quality for \$60; \$10 down and \$5 per month.** ¶ If you are interested in a reliable watch, we offer a gentleman's O. F. 12, 16 or 18 size, or lady's 6 size, plain or engraved, **20-year guaranteed gold filled case, fitted with genuine Elgin or Waltham movement at \$12.50; \$3 down, \$1.50 per month.**

Write to-day for free catalog No. A87. Remit first payment with order or have goods sent by prepaid express. C. O. D. for your inspection.

Herbert L. Joseph & Co.
217 STATE ST. CHICAGO.

Same movement as above, with hunting case, **\$16.75.**





Indigestion makes you miserable.

You have sourness, gas, heartburn, dyspepsia or other stomach distress.

Now take a little Diapepsin. It *really does* make out-of-order stomachs feel fine in five minutes. Large case at druggists 50c.

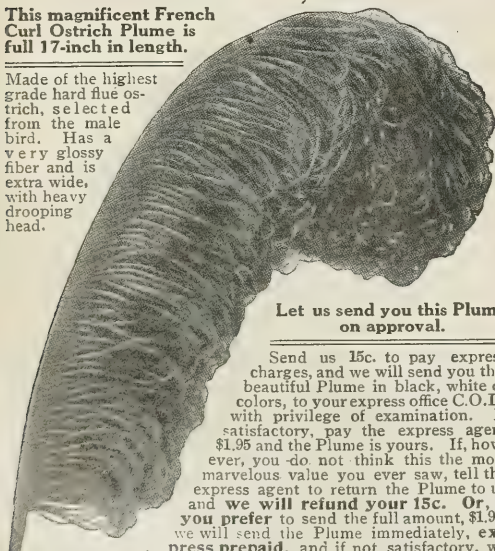


Upset? Pape's Diapepsin will put you on your feet

\$1.95 for this genuine **17-in.** Ostrich Plume

This magnificent French Curl Ostrich Plume is full 17-inch in length.

Made of the highest grade hard fine ostrich, selected from the male bird. Has a very glossy fiber and is extra wide, with heavy drooping head.



Let us send you this Plume on approval.

Send us 15c. to pay express charges, and we will send you this beautiful Plume in black, white or colors, to your express office C.O.D. with privilege of examination. If satisfactory, pay the express agent \$1.95 and the Plume is yours. If, however, you do not think this the most marvelous value you ever saw, tell the express agent to return the Plume to us and we will refund your 15c. Or, if you prefer to send the full amount, \$1.95, we will send the Plume immediately, express prepaid, and if not satisfactory, we will promptly refund your money. **We take all the risk.** For complete line of Ostrich Feathers, including bargains in Willow Plumes, write for free catalogue.

SPECIAL Full 15-inch Ostrich Plume Black and Colors **\$2.25**
Beautiful 19 in. French Curl Plume, **\$5**
This will compare with plumes sold by your local dealer and elsewhere for \$10.00.

South African Importing Co. 1841 WABASH AVE
THE OSTRICH PLUME HOUSE OF AMERICA
Dep't. 120 CHICAGO.

WHITE VALLEY GEMS

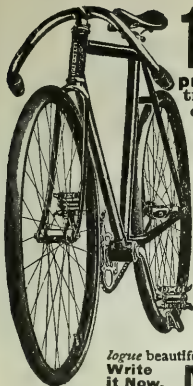
No. 114 1Kt. Gem Solid Gold Tiffany, \$10.00
No. 103 1Kt. Gem Solid Gold Stud, \$10.00
No. 163 1Kt. Gem Solid Gold Belcher, \$15.00

See Them Before Paying

These gems are Chemical White Sapphires and **can't** be told from diamonds except by an expert. So **hard** they **can't** be filed, so will wear **forever** and retain brilliancy. We want you to see these gems—we will pay all expenses for you to see them.

Our Proposition—We will send you either rings or stud illustrated—by express C. O. D. all charges **prepaid**—with privilege of examination. If you like it, pay the express man—if you don't, return it to him and it won't cost you a cent. Fair proposition, isn't it? All mounted in solid gold, diamond mountings. **Send for Booklet.**

WHITE VALLEY GEM CO.
504 HOLLIDAY BUILDING, INDIANAPOLIS, IND.



10 DAYS FREE TRIAL

We will ship you a

"RANGER" BICYCLE

on approval, freight

prepaid, to any place in the United States *without a cent deposit in advance*, and allow ten days free trial from the day you receive it. If it does not suit you in every way and is not all or more than we claim for it and a better bicycle than you can get anywhere else regardless of price, or if for any reason whatever you do not wish to keep it, ship it back to us at our expense for freight and you will not be out one cent.

LOW FACTORY PRICES

men's profit on every bicycle.

We sell the highest grade bicycles direct from factory to rider at lower prices than any other house. We save you \$10 to \$25 middle-

Highest grade models with Puncture-Proof tires, Imported Roller chains, pedals, etc., at prices no higher than cheap mail order bicycles; also reliable medium grade models at unheard of low prices.

RIDER AGENTS WANTED

and the liberal propositions and special offer we will give on the first 100 sample going to your town. Write at once for our special offer. **DO NOT BUY a bicycle or a pair of tires from anyone at any price** until you receive our catalogue and learn our low prices and liberal terms.

BICYCLE DEALERS, you can sell our bicycles under your own name plate at double our prices. Orders filled the day received. **SECOND HAND BICYCLES**—a limited number taken in trade by our Chicago retail stores will be closed out at once, at \$3 to \$8 each. Descriptive bargain list mailed free.

TIRES, COASTER BRAKE

line at half usual prices. **DO NOT WAIT**, but write today for our Large Cata-

logues beautifully illustrated and containing a great fund of interesting matter and useful information. It only costs a postal to get everything. Write it Now.

MEAD CYCLE CO. Dept. M 31, CHICAGO, ILL.

10 PENNIES LEAD

10 MEN TO

GET \$32,034.81

Fortunes made with **Strange Invention**. New, **gigantic, money-making opportunity**. No longer controlled by a few—now open to any man or woman. Astounding, but true; **over \$2,000.00 in 2 weeks** an actual record. See, read, hear the grand glorious news, **how 10 men like yourself earned over \$32,000.00** simply because they had something everybody was longing, hoping, wishing for. Of this sum **Korstad (Farmer)** sold \$2,212.13 in 2 weeks; **Zimmerman (Farmer)** orders \$3,856 in 39 days; **Stoneman (Artist)** sold \$2,481.65 in 60 days. No wonder Cashman says: "A man who can't sell your goods couldn't sell bread in a famine." **But listen!** **Rasp (Agent)** sold \$1,685 in 73 days; **Juell (Clerk)** \$6,800; **Oriatt (Minister)** \$4,000; **Cook (Solicitor)** \$4,000; **Rogers (Surveyor)** \$2,800; **Hoard (Doctor)** \$2,200; **Hart** \$5,000 and **took 16 orders in three hours.** Rogers writes: "Selling baths has got me one piece of property. Expect to get another." Hundreds already getting rich. You should too; why not? **Experience don't matter.** How easy—just show; money yours—**75 per cent. profit.** Allen's Bath Apparatus gives every home a **bathroom for \$6.50**; all others \$150; yet do less. Think of it! So energizes water, 1 gallon ample; cleanses almost automatically; no plumbing. Could anything be more popular? It's irresistible. **Reese (Carpenter)** saw 60 people—sold 55; result \$320. "Sell 8 out of 10 houses," writes Maroney (Clerk).

LET US START YOU as exclusive agent, salesman, manager; cash or credit plan; all or spare time. **CUTION:** This ad. may not appear again. Territory going fast. Reader, wake up; don't plod; get rich. Risk 1 cent now—a postal—for free book, proofs and remarkable offer. **THE ALLEN MFG. CO., 1782 Allen Bldg., Toledo, Ohio.**

"Lucky I answered ad. Money coming fast." Agt. A. L., Me.



I Can Increase Your Earnings

No matter where you live or what your occupation or income may be, I can make you prosperous. If you want to earn more money—if you want to establish yourself in an independent business requiring no capital—send me your name and address on coupon below. (or a postal will do) and I will mail you, free, our **Big 62-Page Book**, fully explaining just how you can fit yourself to earn big money in the

Real Estate, Brokerage and Insurance Business

We have perfected a thoroughly practical, scientific method of teaching these big money making branches by mail. Our system is a positive success. It not only equips you fully on every point of Real Estate, Brokerage and Insurance, but also give you, free, a valuable course in Commercial Law. Our Free Book is of great interest to anyone, but is of vital importance to Clerks, Book Keepers, Salesmen, Agents, Solicitors and others who are ambitious to be in a good paying business of their own. Send no money, but merely your name and address on a postal or on the coupon below.

The Cross Co., 3737 Reaper Bldg., Chicago, Ill.

NAME

ADDRESS

OCCUPATION

Hair Like This is the Crowning Glory of Man or Woman



Is it yours? Are hair troubles overtaking you? If you are bald or near bald; when your hair is falling, faded or dying; when dandruff begins to get in its destructive work, get **Lorrimor's Excelsior Hair Tonic**, the remarkable treatment the newspapers everywhere are telling about; the remedy that does more than is claimed for it; the remedy that doctors are praising. Get it or order it of a reliable drugist—one who will not offer you a substitute. If you have never used

Lorrimor's Excelsior Treatment let me send you **FREE** by prepaid mail a trial supply of this remarkable hair food. Write today to **WM. CHAS. KEENE, Pres't, Lorrimor Institute, Dept. 2799, Baltimore, Maryland.**

NO 2500 1/2 CT
NO 2551 1 CT

Mexican DIAMONDS

On FREE Examination

An expert is often unable to distinguish a Mexican Diamond from the finest South African genuine diamond. Both have blue-white fire, dazzling brilliancy, rainbow flashes of color, and perfect cut. Mexican Diamonds guaranteed permanently brilliant. To prove our claims we will send for **free examination**, by express, C.O.D., the rings shown above at Special Introductory Prices. No. 2500 Ladies' Tiffany Ring, 1/4 carat Mexican Diamond, \$4.98—No. 2501, same, but 1 carat, \$7.76—No. 2550 Gent's Round Belcher Ring, 1/2 carat, \$6.94—No. 2551, same, but 1 carat, \$11.36. All rings are **solid gold**. State size and we will forward ring immediately with guarantee. 10 per cent. discount, if cash accompanies order. If not satisfactory, return in 3 days for refund. Write today for **Free Illustrated Catalogue**. **MEXICAN DIAMOND IMP. CO., Dept. ER4, LAS CRUCES, NEW MEX.** Exclusive Controllers of the Mexican Diamond.



Salary Increases

Voluntarily Reported Every Month

If one thing more than another proves the ability of the International Correspondence Schools of Scranton to raise the salaries of poorly-paid but ambitious men and women—to raise **YOUR** salary—it is the monthly average of 300 letters **VOLUNTARILY** written by students telling of salaries raised and positions bettered through I. C. S. help.

YOU don't live so far away that the I. C. S. cannot reach you. Provided you can read and write your schooling has not been so restricted that the I. C. S. cannot help you. Your occupation isn't such that the I. C. S. cannot improve it. Your spare time isn't so limited that it cannot be used in acquiring an I. C. S. training. Your means are not so slender that you cannot afford it. The *occupation of your choice* is not so high that the I. C. S. cannot train you to fill it. *Your salary is not so great that the I. C. S. cannot raise it.* To learn how easily it can be done, mark the attached coupon.

A Salary Increase For You

Add to the three hundred students heard from every month, the other successful students not heard from, and you have some idea of the tremendous salary-raising power of the I. C. S. During January the number of students who reported success was 426. Mark the coupon.

Marking the coupon costs you nothing, and does not bind you in any way. An I. C. S. training can be acquired in your *spare time*.

Mark It N-O-W!

INTERNATIONAL CORRESPONDENCE SCHOOLS Box 1003, SCRANTON, PA.

Please explain, without further obligation on my part, how I can qualify for the position before which I have marked X.

General Foreman
R. R. Shop Foreman
R. R. Traveling Eng.
R. R. Trav'g Fireman
Locomotive Engineer
Air-Brake Instructor
Air-Brake Inspector
Air-Brake Repairman
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Mechanical Draftsman
R. R. Construction Eng.
Surveyor
Civil Engineer

Banking
Electrical Engineer
Machine Designer
Electrician
Mining Engineer
Mine Foreman
Foreman Machinist
Chemist
Assayer
Architect
Bookkeeper
Stenographer
Ad Writer

Name _____
Employed by _____ R. R. _____
Employed as _____
Street and No. _____
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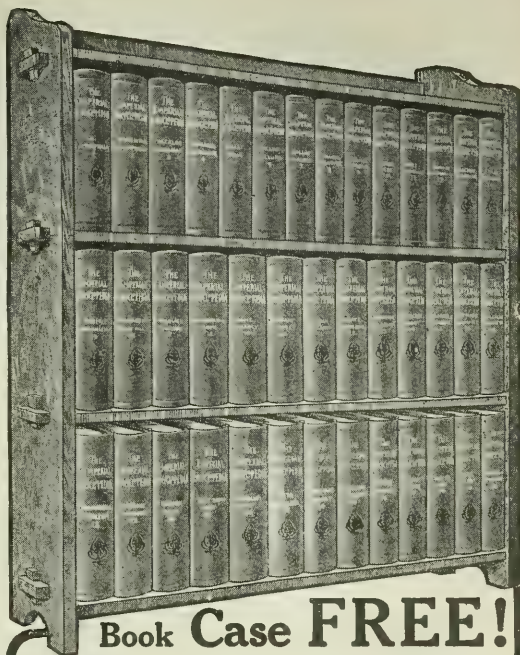
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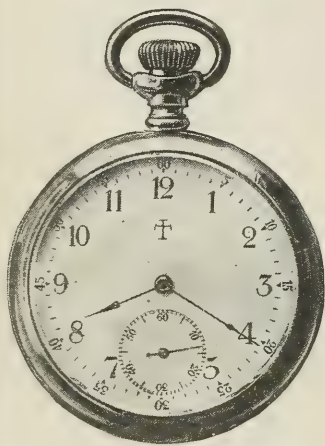
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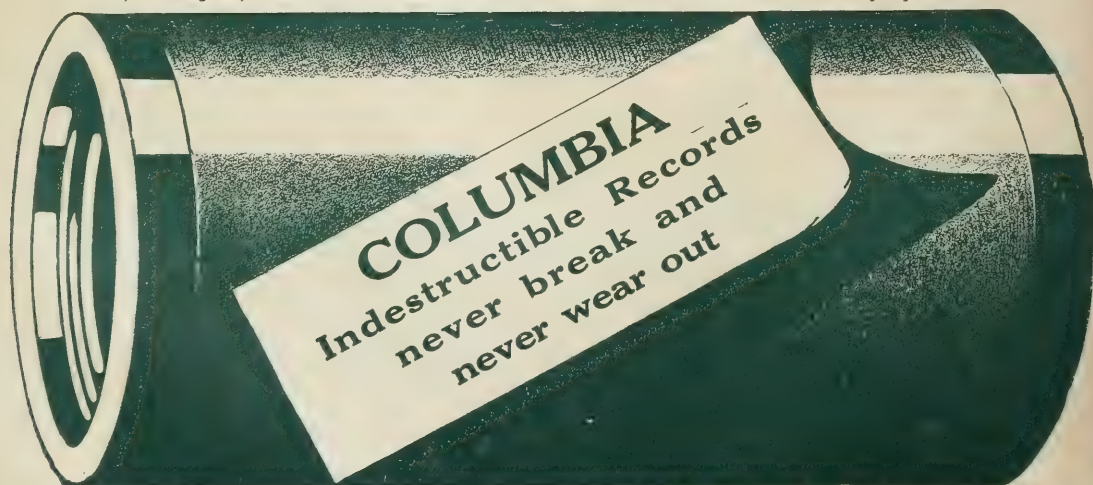
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Pears' Soap produces a matchless complexion which not only gives natural beauty but a matchless comfort to the body.

Health, beauty and happiness follow the use of Pears' Soap. The mothers of today can well follow the example of the last six generations and have their memory revered by teaching their children to use

Pears' Soap

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Johnson's Kleen Floor

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We want to send you, free, prepaid, samples of our Kleen Floor and Prepared Wax, together with the latest edition of our handsomely illustrated book on the "Proper Treatment of Floors, Woodwork and Furniture." We attach a coupon for your convenience.

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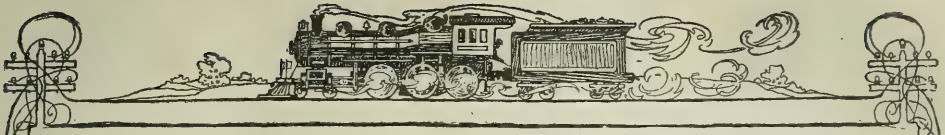
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THE RAILROAD MAN'S MAGAZINE

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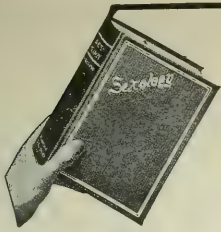


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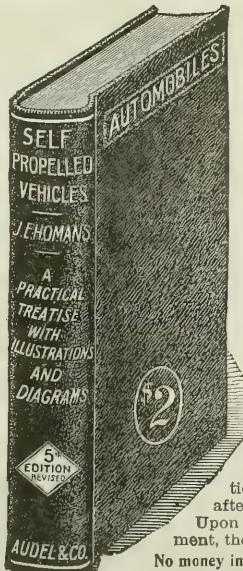
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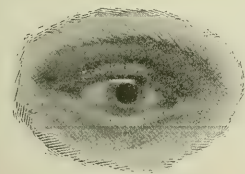
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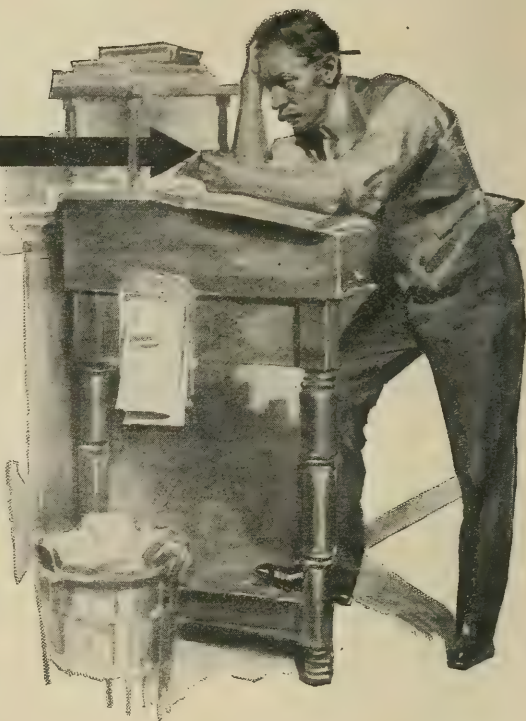
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THE RAILROAD MAN'S MAGAZINE

Vol. XI.

MAY, 1910.

No. 4.

Hold-Ups That Missed Fire..

BY FRANK MARSHALL WHITE.

GETTING away with it is the chief and most hazardous part of the hold-up man's game. Almost anybody can stop a train, by hook or by crook, and even getting to the goods is comparatively simple. But when the robber's back is turned; when the threatening danger of his gun is removed; when every move he is making is laying a clue—there is the almost insurmountable difficulty. If the Big Swede had kept his head he might have got away with it. So might the other desperadoes mentioned in this story. But they were doomed before they started by their own inefficiency.

Men Who Have Embraced the Dangers of Opposing the Law, and Have Lacked in Nerve or Brains To See It Through.



HE Helena Express on the Northern Pacific Railroad, in Montana, was just crossing the Little Green River bridge, after leaving Galatin on a moonlight night.

Caspar Fischer, the engineer, with his fireman, John Nicoll, were standing together at the cab window, when a stern voice behind them suddenly commanded:

"Hands up—both of you—quick!"

Fischer and Nicoll had their hands above their heads before the man at their backs had fully issued the mandate.

Neither turned his head, it being etiquette in Montana under such conditions to await directions before moving, since a desperado with a pistol is very likely to mistake any action for a hostile one.

In another second came this sharp-second command:

"Now, then, you, engineer! Turn round and go through the fireman's pockets. Be quick about it, because your engine is likely to need attention."

Fischer turned at once, and did as he was bidden, taking everything out of his fellow employee's raiment, including a .38 revolver, which he handed, butt first, to a man of gigantic stature, who was standing within two feet of him, and covering him with another .38.

"Back up here, now," said the giant, hurling the captured weapon from the engine over his shoulder.

Fischer promptly turned and backed, and his captor went through the engineer's pockets with his left hand, relieving him of their contents, which also included a revolver that might have been a brother of the other two, Nicoll meanwhile standing with his hands still above

his head and his back to the other occupants of the engine, realizing that an unwary motion was likely to prove fatal.

The giant threw the engineer's pistol into the ditch beside the track, as he had that of the fireman, and issued further instructions.

"Engine need any attention?" he inquired briskly of Fischer. "If she don't, take this rope and tie up the fireman." And he handed him a piece of strong cord about five feet in length, again using his left hand, and still keeping the engineer covered with the pistol. Fischer barely felt the throttle of the big machine that was whirling the express along the tracks; and, finding everything all right with her, took the cord and proceeded to bind his fireman's arms.

"Make a good job of that," warned the giant calmly, but in a tone calculated to compel close attention. "If he comes unbound, I'll shoot you and let him run the engine!"

The Big Swede.

Fischer took pains, and did make a good job of it. Then Nicoll was ordered to go back to the tender and lie down on the coal. The engineer was compelled to bind the other's feet with another piece of cord furnished by their captor.

Both the fireman and the engineer by this time had recognized their new and summary acquaintance, from descriptions they had heard and read of his great stature, flat nose and fair hair, as Herman Young, a hold-up man with a reputation, known in that part of the country as the "Big Swede."

The Big Swede turned his attention to Fischer, pistol in hand.

"Neither of you fellows is a tender-foot," he said to the engineer; "and you know perfectly well that if you obey orders nothing is going to happen to you; and that if you *don't* obey orders something *will* happen mighty sudden. When we get to the siding at the foot of the incline, four miles along, stop the train and uncouple the express-car. We'll take that car along with us a ways."

There was nothing for it but to obey, as Fischer knew perfectly well.

It was about ten-thirty o'clock, when

the express reached the siding at the foot of the incline designated by the Big Swede; and, obeying his orders, Fischer stopped the train. Still following instructions, the engineer jumped from the engine to the ground, followed by his captor, with finger on the trigger of his pistol.

Train-Crew Kept Dark.

The conductor and the train-crew had surmised the reason for the stopping of the train, and they did not venture to show themselves any nearer to the engine than the rear platform of the last car. They would have been fools if they had, for they did not know how many were in the attacking party, nor from what point along the track a shot might come.

At the point of the Big Swede's pistol Fischer uncoupled the express-car from the passenger-coaches behind it, and from the baggage-car in front. Then he returned to the engine and hauled the baggage-car out on the siding, coming back on the main track and closing up to the express-car.

He got down from the engine to turn the switch at each end of the siding, and again to couple the express-car to the engine, on each occasion escorted by the desperado, with the pistol cocked and ready.

During all this period the train-crew and the passengers remained inside the car. Indeed, few of the passengers knew that any unusual occurrence had stopped the train.

Had Dynamite Ready.

Under Young's direction, Fischer took the express-car up the incline and ran it some two miles away from the rest of the train, where he brought it to a standstill. There was no other train due along the line for several hours, so that there was no immediate danger of a collision, and now the engineer and his captor approached the baggage-car, where the latter called upon the express messenger, Ike Perkins. There being no response, the Big Swede produced a stick of dynamite from his boot-leg and made Fischer blow the door open, the explosion tearing out one end of the car.

Approaching this aperture, forcing Fischer to walk before him as a shield, the desperado discovered Perkins, with cocked revolver, standing guard over the property committed to his care, and called upon him to throw his weapon out of the car and empty his pockets. The express messenger obeyed orders. He could not shoot at the robber without endangering the life of Fischer. On the

explosion a mass of loose yellow coin rolled out on the floor—seventeen thousand dollars in gold double-eagles. The sight temporarily unbalanced the Big Swede's mind, and, with a roar of delight, he dropped both of his pistols and fell head forward into the golden flood, attempting to pick up an armful. In a fraction of a second Perkins seized a piece of the wreckage of the car and



HIS CAPTOR WENT THROUGH THE ENGINEER'S POCKET.

other hand, Perkins afforded a fair mark for Young.

Once inside the express car the Big Swede, cool and masterful, produced another revolver and more dynamite and, covering both of the other men with his battery, he ordered them to blow open the safe, which he knew to contain many thousands of dollars in actual cash.

The Big Swede's Mistake.

And now a surprising thing happened. As the safe fell apart at the sound of the

struck the desperado a terrible blow over the back of his head.

The Big Swede did not recover consciousness until noon the following day, when he found himself under guard in the hospital at Montana. He is at present serving a term of fifty years in State prison, for the hold-up men get long sentences in Montana.

It is the circumstance that, by reason of the enormous productiveness of the soil over vast but under-populated areas in Montana, it is difficult always to safeguard the overflow of wealth that has

brought lawless and desperate men into the State. It is because, of these conditions that the shrievalty in these prosperous agricultural districts goes to that man whose integrity is not only beyond chance of reproach, but whose physical strength and courage are one with his public spirit. It is not a case of setting a thief to catch a thief in that part of the country, for the holder of the office of sheriff not only must be as quick on the trigger and seemingly as reckless of life as the prowling marauder it is his duty to suppress, but he must possess the highest confidence of the community he binds himself to protect, and be prepared to sacrifice his own interests at all times for the public welfare.

A Sheriff's Duty.

Milton W. Potter, former sheriff of Carbon County, Montana, who has a record of riding five days and nights with only one square meal, and not more than an hour or two of sleep at a time, in pursuit of two outlaws who had committed murder, said to the writer recently:

"A sheriff out there must be always ready to jump on a horse at a moment's notice, prepared to ride like a Crow Indian, without food or water."

The duties of the office are arduous, but to hold it is an honor sought by good citizens.

The activity of the Montana sheriffs has rid the State of most of the more dangerous of the hold-up men, but the chance of making a fortune in one job by the looting of a money-laden express-car continues to lure desperadoes.

Indeed, even boys have tried their hand at the game. Last April three young ruffians, all under twenty-one years of age, attempted a hold-up at Homestake, where the Northern Pacific trains stop just before coming into Butte. The boys, who had evidently read about the methods of train-robbers, had concealed themselves behind the water-tank at Homestake as the train came in, and then climbed aboard the engine tender and hid in the coal as it pulled out.

When the train was well under way the trio, each with a revolver, appeared before Frank Clow, the engineer, and de-

manded that he stop the train. Clow reached down, probably to operate the air-brake, it is supposed, but the boys, believing that he was reaching for a weapon, fired at him all together, killing him instantly.

They were caught, and are serving sentences of eighty years each, which, with commutation for good behavior, will bring their terms down to something like thirty years.

Another desperado named Kinnicutt, who was a novice in the use of dynamite, wrecked a train at Bear Mouth, on the Northern Pacific, last May, for the sake of the contents of the safe in the express-car; and though he effected the deaths of three better men, was himself captured and hanged. The train on this occasion was running at the rate of some twenty miles an hour, five miles from the station, about eleven o'clock one night, when the engine exploded a tremendous charge of dynamite on the track, and was blown to the top of an embankment thirty feet high, killing the engineer, fireman, and a brakeman who happened to be on the front platform of the baggage-car. The other cars were thrown from the track, but the passengers suffered only minor cuts and bruises.

Hoist With Own Petard.

During the confusion attendant on the catastrophe a man was found lying unconscious one hundred feet from the wreck. He proved to be Kinnicutt himself, who, not being aware of the force of the explosive he had used, had remained too close to the track. Before he was hanged in August he was shot through the hips, while attempting to break jail at Butte.

Another Montana bandit was equally unfortunate with the others whose misadventures have been related. This fellow, who has not been identified, had developed a scheme with another, who escaped without being recognized. On this occasion the Eastern Express from Billings, which was carrying a big shipment of gold, was to have been held-up ten miles out of the town. One of the would-be robbers took a seat in the passenger-car at Billings, and the other got aboard the rear platform of the baggage-



PERKINS SEIZED A PIECE OF THE WRECKAGE OF THE CAR AND STRUCK THE DESPERADO.

car, whence he crawled over the top to the engine tender.

Now, it so happened that Conductor Jackman, for some reason or other, became suspicious of the man in the passenger-car; and when that person followed him out to the platform, a quarter of an hour after leaving Billings, he was prepared for him. The result was that each drew a revolver, and that Jackman got his out first and shot the other man through the heart.

Meantime, the confederate had reached the tender of the engine; but, before he had attempted to hold up the engineer,

the conductor had pulled the communication cord as a signal to stop the train, upon the shooting of rascal No 1.

Rascal No. 2 evidently surmised that the scheme to rob the express was not working smoothly, for the engineer saw him jump from the engine as the train began to slow down.

The incident that was most talked about in Montana in 1908, wherein was shown the kind of sheriffs out there, and also the perils to which they are subjected, had its real beginning some eight years before.

On that occasion a Western desperado,



IT PROVED TO BE
KINNICUTT.

Harry Roche, with a companion whose identity was not established, planned to rob the Northern Pacific Express at Logan.

Both sneaked to the rear platform of the baggage-car, as the train was leaving this point, and Roche sent the other man over the top of the car to deal with the engineer. He had some doubts as to his confederate's nerve, and hence he watched him closely. Just as the fellow was dropping from the front platform of the car, Roche, who was a pretty shot with a revolver, put a bullet through his brain from the rear-platform steps.

The Sheriff Shot.

The desperado was recognized as he leaped from the train, and although the death of a hold-up man was no loss to the community, Sheriff George T. Young, of Logan County, determined to capture Roche and put him out of the way.

With his deputy, Frank Beller, the sheriff started in pursuit of the desperado, overtaking him at the station at Springville just after dark, on the evening after the killing of his partner.

Roche saw the two men coming from a window of the station, and went out into the darkness of the platform and, with drawn pistol, watched the station door.

As the sheriff came out, with the light behind him, Roche shot him through the heart, and when he fell, and Beller stooped to pick him up, he sent a bullet into the deputy's lungs, from which the deputy recovered after a long illness.

The double murder—as it was at first supposed to be—of the sheriff and his deputy roused Montana and Wyoming as no similar occurrence had ever done. Roche's description, with the news of his crime, was immediately telegraphed and telephoned to the remotest points.

The police all over the West were

notified, and every railway station in Montana and Wyoming was watched. Young had been a leading citizen of Logan. He was personally popular, and his friends swore that his death should be avenged.

No trace of Roche was ever found, and nothing ever heard of him. It was generally believed that he had either committed suicide or had died of exposure.

Among the personal friends of Sheriff Young, who took an active part in the search for Roche, was the prosecuting attorney of Yellowstone County, a leading resident, lawyer, and property owner of Billings, John Brooke Herford by name. Herford, who had come to the West some twenty years before, is of English birth, a son of the Rev. Dr. Brooke Herford, before his death a celebrated Unitarian clergyman in London.

He is also a brother of Beatrice Herford, the monologist, and of Oliver Herford, famous as playwright and wit. Herford was one of the first men to volunteer in the search for Roche, and among the last to give up.

Didn't Know His Capture.

Sheriff John T. Webb, of Yellowstone County, traced a man who was wanted for grand larceny at Basin, in Big Horn County, to James Richardson's sheep-ranch, fifty miles from Billings, and arrested him. The arrest was made early in the afternoon out on the ranch, five miles from the house, whither Richardson had driven the sheriff on a buckboard, his horse having been left in the stable.

The prisoner had been working on the ranch for several weeks under the name of Buck Jones. When he was informed that he was under arrest, he asked the sheriff if he might go into a covered wagon close by, that contained such primitive toilet accessories as are in use on sheep-ranches, and clean himself up a bit before being taken away.

The man who called himself Buck Jones was none other than Harry Roche, who, since the murder of Sheriff Young eight years before, had been working as a ranch-hand, having in some manner avoided identification. Sheriff Webb, believing him to be an ordinarily harmless criminal, good-naturedly allowed him to

visit the wagon, which was only a few feet away.

Roche was well aware that if he were taken into a court of justice anywhere in Montana, he would be sure to be recognized by some one there, when his shrift would be short. There was a Winchester rifle in the wagon, and, a second after the presumed Buck Jones had climbed in, Sheriff Webb, who was talking to Richardson, heard the stern command: "Hold up your hands!" Turning, he saw his prisoner covering him with a rifle not ten feet away.

No Quarter.

Now, while it is considered no disgrace for the ordinary citizen in the troublous parts of the West to put up his hands when another man has the drop on him, it is not etiquette on the part of a sheriff. Consequently, Webb only reached for his revolver, whereupon Roche shot him through the heart, as he had Sheriff Young.

Richardson, who was a very ill man at the time—in fact, he died under an operation for appendicitis a week later—had no weapon with him, but his former employee offered him no injury. He merely took the dead man's revolver and cartridge-belt and started away across the ranch, carrying the Winchester rifle also.

Richardson drove the buckboard back to his house, the horse at a gallop, and telephoned the news of the murder of Webb to Deputy Sheriff Taylor at Billings. The news threw the town into an uproar, for Webb was a prominent citizen, a silent, kindly man, and, aside from that, he represented the majesty of the law.

As had been the case when Sheriff Young was murdered, the news of the killing of Webb was telegraphed and telephoned all over Montana and Wyoming. There was a general uprising to hunt down the murderer, armed men closing in upon Richardson's ranch from east, west, north, and south.

Special trains to carry the man-hunters were run to Billings, the nearest railroad-point to the sheep-ranch from Miles City, and from Forsyth in Wyoming, while mounted deputies from the nearer towns, and citizens, carrying rifles, from

Bozeman, Big Timber, Red Lodge, Columbus, Laurel, Round Up, Lewiston, Basin, and a score of other places hurried to the scene of the tragedy as fast as horses and steam could take them.

As it happened, one of the first men

the sleeping-quarters of the men who cared for the stock.

The fugitive was not likely to let them get too close, and they had no means of knowing how clever a marksman he was, as he had killed Webb at short range.



Deputy Sheriff Taylor met, when he ran out of his office to spread the news of Webb's murder, was John B. Herford, one of the victim's best friends. Herford had just come into town from Bear Creek in his touring-car, and, only waiting long enough to go to his house for his rifle and revolvers, and taking Taylor into his car, he put on all speed for Richardson's ranch, fifty miles away, which was reached in an hour and a half.

They Were Good Targets.

The departure of the two men had been telephoned to Richardson, who had horses waiting, and, getting directions as to the course the murderer had taken, they galloped out over the ranch with weapons ready. Herford and the deputy sheriff were exposed on horseback and made excellent targets for the desperado, who might be in any one of the covered sheep-wagons, which, placed at varying distances apart over the big ranch, were

They did know that a good shot might pick both riders at long range.

However, the men rode from one wagon to another, inquiring for traces of the sheriff's murderer, and finally located him in one of the sheep-wagons about seven miles from the spot where he had shot Webb. He had made holes in the canvas cover on both sides of the vehicle, through which he could put the end of his rifle, and he made his presence known by a shot that whistled by Herford's head, following it up by another that was intended for Taylor. Fortunately for them, he did not prove to be an expert with the rifle.

The horsemen waited until the man in the wagon fired again, and instantaneously returned his fire, aiming just below the point where the flash of his rifle was seen. He responded promptly, and thirty or forty shots were exchanged during the next half-hour.

It had been a fine spring day; but now, about four o'clock in the afternoon, it

suddenly turned cold and began to grow dark, while the wind rose and snow began to fall, creating exactly the conditions favorable for an escape. If the hunted man were able to hold off his pursuers for only a few minutes more, they

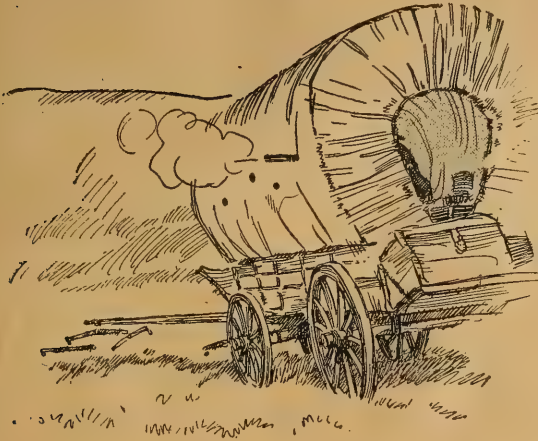
one. The law of a life for a life exacted by human justice has its root deeper than the human will. It is inborn in Circumstance. And, after all, the chief characteristic of train-robbers, and of all other robbers for the matter of that, has always been futility.

A grim visage, a desperate determination and a gun are poor substitutes for the particular efficiency which is really a product of moral directness. Many of our "stick-up" friends often for a time have seemed to defy the law of the community and the law that works for ultimate justice, but always in the end they have been caught up with.

Sometimes the "catching up" has resulted in the end of a rope or a long residence in prison. At other times the "catching up" has been more secret but not less terrible. Always it seems that the deficiency that causes men to attempt the achievement of wealth without taking a legitimate part in the world's industries is a symptom of failure, even in the violent profession of their own choosing.

At any rate, train robbery as a means of getting a living seems to be rapidly falling into disfavor, for the simple reason that it has become more and more unprofitable. Now and then there are spasmodic and isolated attempts to revive the industry, as in the case of the Pennsylvania hold-up of recent history, but, as in that case, the game has usually proved to be worth something less than the grease of the candle.

Patrolled tracks do not lend themselves readily to the exploits of hold-up men, neither do steel cars, mighty safes, and splendidly organized railway, private, and city detective systems. The particular brand of incompetent who once turned his gun upon the engineer has been compelled to choose some less heroic outlet for his villainy. And, aside from this, the legal punishment for train-robbery in some States is too severe to lure the highwayman to take chances in a game that may or may not be profitable even if he is not eventually caught.



FOUR BULLETS FLEW BY HIS HEAD AS HE APPROACHED,
THE LAST ONE TAKING OFF HIS HAT.

felt that he might easily slip out of their sight in the darkness and snow.

The Inevitable End.

Then Herford took a desperate chance. He was a dead-shot with a pistol, and, handing his rifle to the deputy sheriff, he suddenly rode down on the sheep-wagon at full speed, pistol in hand. Four bullets flew by his head as he approached, the last one taking off his hat at the moment that, aiming in at the rear of the wagon as he dashed by, he shot the murderer through the brain.

The men found then that others of their shots had broken one of his legs in two places, so that his escape would have been impossible.

That was the end of "Buck Jones," but it was not until several days later that it was learned that it had been the end also of Harry Roche, train-robber and triple murderer.

His end was the well-nigh inevitable

A HERO FOR HAZELLE.

BY FRANK CONDON.

**When You Steal an Engineer's Girl, Don't
Wear a Swiss Hat with a Sassy Green Feather.**



HERE was a train on the N. Y. E. known as the Cannon-Ball Limited Mail. It was more than a mere thing of wheels, wood, and glass. It was a sacred institution.

They had photographs of it in the waiting-rooms all along the road, and whenever the line advertised, it used a cut of the Cannon-Ball tearing over the trestle at Washington Span, with wisps of steam shooting out of her cylinders. Officials spoke of the train with respect; the president invariably rode over the line on her once a year; and it was the ambition of every engineer and fireman to land in the cab of the big mogul that dragged the Cannon-Ball daily from Cincinnati to Philadelphia.

The Cannon-Ball was an all-mail affair — six heavy coaches. The government kept an eye on her like old Mr. Thomas Cat at a rat-hole. In a moment of aberration, at some distant date the N. Y. E. had contracted to carry mail to tidewater, and as the government seemed a trifle peevish about past service, the N. Y. E. flipped its fingers and announced to the government that, while somebody's railroad might bring mail in late, the N. Y. E. was doing business on a different line.

To show the government what a real railroad could do in the way of being prompt, the N. Y. E. guaranteed to deliver six coaches loaded with mail every day at Philadelphia from the West, and for every minute the Cannon-Ball was late in pulling in the N. Y. E. would pay the government the sum of ten dollars.

It sounded like an earnest proposition to Washington, and before the N. Y. E.

realized it the road was bound up by a contract that couldn't be broken by harsh words, dynamite, or legal prestidigitators.

Ten dollars a minute amounts to considerable money when a train is a few hours late. When the N. Y. E. got down to business, the general superintendent had a long, serious talk with the men who were to run the Cannon-Ball.

He impressed them, one and all, that the N. Y. E. regarded ten-dollar bills with distinct reverence, and if they were, singly or collectively, guilty of bringing the train in late, they would be taken out and hanged to the beams in the round-house immediately after arrival. There was one loophole. The government admitted that human man could not overcome certain acts of Providence. When Providence happened to tip a cloudburst over the N. Y. E. System and wash away its rails, the government would not insist upon its pound of flesh. Other than this, there was no escape. The Cannon-Ball must be on time.

Railroads are railroads, and governments are governments, and mail is mail.

But what are these to Love?

No far-seeing railroad would ever attach to the throttle of the Cannon-Ball Mail a young engineer who was hopelessly in love, provided the railroad knew he was in love.

If the railroads could have their way about it, they would not permit falling in love. They would prefer married men; but in this instance the N. Y. E. knew nothing about the state of Jerry Skeldon's heart. It knew that he had a steady hand and a keen eye, that he had nerve and courage, that he could tear the old

Cannon-Ball along at anywhere from seven to seventy miles, and that he rarely was five seconds late at any point on the line.

Jerry Skeldon was particularly young to be the engineer of the important train over which the government was watching, and if he had not been in love for some time, and therefore was totally unable to do anything about it, he would have refrained from getting into such a state as a matter of duty to his railroad.

Two years before, young Skeldon was a fireman. One sunny afternoon, while his train was running through the red-clay cut six miles east of Northampton, he had carelessly waved a begrimed handkerchief at a girl on the lip of the cut.

All he could tell about the girl was that she seemed young and slender, and that her gown was one of those fluffy apple-blossom affairs that men like to see.

On that trifling and accidental salute depended grave things and weighty matters. The fluffy girl was on the top of the red-clay cut two days later, when Jerry's train banged along toward Winchester. Naturally he waved again, this time with a perfectly clean white handkerchief. To his surprise, the vision waved back at him.

Thus, for two months fireman and girl greeted each other every second day; and when the girl missed a week without once appearing, Jerry Skeldon took a leave of absence and chased himself out to Northampton, where he found, after careful sleuthing, that a girl named Hazelle Hoisington was ill with typhoid.

He wired for extended leave, put up at the lone hotel in Northampton, bought flowers, fruit, and books, and when the girl was able to sit up in bed he came in one day and shook hands with her.



TO HIS SURPRISE, THE VISION WAVED
BACK AT HIM.

"Glad you're getting better," said Jerry Skeldon. "I'm the fireman on the Cannon-Ball. I've been waiting here for two weeks till you got better."

The girl smiled at him wanly, and he became a member of the household. Hazelle's father and mother may have been surprised, but they could not deny Jerry's solicitude nor his flowers.

In a few weeks he returned to the world of fire-boxes, signal-lamps, and switches, and he did so with a sort of understanding with Miss Hoisington. They were to be married eventually. Every week Jerry came to Northampton, rented a livery-rig, and then drove abroad among the trees and fields.

Jerry had been accustomed to parting company with his income as rapidly as possible, and before marrying it was necessary that he should accumulate a working capital.

He started about it within a week after reaching the agreement in Northampton. Two weeks following that he was made an engineer, in appreciation of service well done.

Later on, when the N. Y. E. landed the government mail contract, he took the throttle of the big Atlantic at the head of that stately train.

For a time, life was roses and honey.

Every second day the Cannon-Ball shot through Northampton and six miles to the east. Jerry leaned from his cab and waved to his sweetheart. It was a brief signal, but it was the sort of wireless that really amounts to something.

Then they had a quarrel—a bitter, violent quarrel. Every lover knows these quarrels. They begin over a trifle, and pick up speed with amazing rapidity.

This one ended as they all do.

Hazelle told Jerry to leave her home and never darken the doorway again. She had long suspected him; now she was sure. He was a selfish brute. No girl in her right mind would ever think of associating with him.

Jerry indulged in a few brilliant remarks, which he would have given a million dollars a syllable to retract when it was too late to retract, slammed the door, and departed from Northampton with murder in his heart.

Thereafter no slim figure waved at him from the top of the red-clay cut. He

rounded the long curve every second day, doing his regular sixty-five miles, and hoping against hope that she would appear.

She did not appear. Neither did she send him letters. He wrote her a chastened and subdued apology, after which ensued a deep silence.

In the meantime Jerry nearly lost his job. Twice he pulled into Philadelphia thirty seconds late. The superintendent called him on the carpet. His fireman snickered at him unfeelingly.

The final blow came one Wednesday morning. It was the bright, sunny kind of weather that makes a man feel glad he lives, and Jerry had almost come back to normal. He was urging the big Atlantic to her best pace, and Northampton slipped away into the distance like a shadow.

The Cannon-Ball approached the familiar red-clay cut at some seventy miles, and Jerry cast an involuntary glance upward.

Then he felt his heart bob violently twice in a horizontal line, twice in a vertical direction, and once in a complete circle, after which it fell out his anatomy altogether—as it seemed to him.

Hazelle was again part of the scenery. She was sitting on the top of a broad fence, swinging a pair of dainty ankles, and staring at the oncoming Cannon-Ball in a most insulting manner—much as she might have regarded the course of an offensive cockroach across the kitchen-floor.

Beside her, shoulder to shoulder, sat a tall young man wearing a Swiss hat from which protruded a "sassy" green feather.

He probably wore other garments at the moment, but it is difficult to take in a multitude of sartorial details from the cab-window of a government mail-train that is making speed.

Jerry smothered a large piece of profanity. Then he loosened the throttle another notch and tore through Water-vliet at an awful speed.

"I wonder," Jerry mused—"I wonder who that guy is?"

For sixty miles he repeated this mystic phrase, and when, in the roundhouse, Coogan, his fireman, spoke to him respectfully about the leaky state of the injector, he poured a torrent of wrath upon that

surprised individual, and drove him from the cab with harsh words.

Coogan had not noticed the man and the girl. Consequently he could not explain to himself the mental state of his engineer.

But he spoke about it in the Philadel-

It was a blasphemous thought. The Cannon-Ball stopped four times between Cincinnati and Philadelphia—and *four times only*. She took on water for the cavernous cylinders to suck up. There was absolutely no other reason for stopping, unless a glacier came down from



HAZELLE WAS AGAIN PART OF THE SCENERY.

phia yards to Morgan, the turntable man. He also promised himself the pleasure of taking a careful poke at Jerry Skeldon the next time that engineer insulted him without reason.

On Friday Jerry saw them again, sitting on the top rail of the fence, swinging their feet and looking down at him as one examines a flea beneath a microscope.

He choked with rage again, and fought off a wild impulse to push the throttle-valve home, throw on the air, leap from the cab, and reach that fellow with the Swiss cap and the green feather without delay.

the north pole and removed the road from the map.

For another week Engineer Skeldon came through Northampton on time, and every trip brought him the vision of two happy souls on the top of the red-clay cut.

On the following Saturday, as he climbed into his cab at Crotonia, his lips were firm. He spoke no word to Coogan, and that gentleman respected his silence.

If the N. Y. E. and the government could have known what was in Engineer Skeldon's mind, another engineer would

have pulled the Cannon-Ball out of Crotonia.

It was a crisp, breezy morning. He could see miles down the track. As the heavy train sang into Northampton and out, Jerry leaned a bit farther from the cab and glued his eyes to the clump of trees behind which lay the red-clay cut.

They were there, sitting on the fence, as usual.

Then something absolutely unprecedented happened to the Cannon-Ball Limited Mail.

Jerry Skeldon threw on the air with a violence that jerked the mail-clerks off their feet, launched the conductor out of a peaceful doze in the last coach, and horrified Fireman Coogan into a state of open-mouthed amazement.

The Cannon-Ball grunted and screamed as the brake-shoes clutched the flying wheels. In thirty seconds she had stopped. Then she began to back up slowly, and Coogan heard Jerry yell:

"Take the throttle, Coogan. Stop her in the cut."

The fireman had a brief vision of his respected engineer leaping from the steps of the cab. Jerry disappeared instantly, and the numbed Coogan stepped into his seat and brought the Cannon-Ball slowly to a halt.

So this was the Cannon-Ball Limited Mail, was it, Coogan communed, stopped in a cut while its engineer went picking daisies and huckleberries? Coogan was no man of imagination. He didn't know what to do under the circumstances, so he didn't do anything. He sat on Jerry's cushions, gaping about. The mail-clerks threw open their iron-barred doors and jumped to the ground.

The conductor rushed up from the last coach, panting, and demanded to know, by the name of the great San Wack, what it meant.

Where was Skeldon? The Cannon-Ball was behind time!

Down in Coogan's soul the spirit of loyalty stirred. They could curse and revile Jerry Skeldon, but Jerry Skeldon was not the man to leave his train without reason. They must wait for him, Coogan announced.

He would return presently, and the Cannon-Ball would make up the lost time. Fifteen minutes were used up in a jaw-

ing-match in which every clerk on the mail participated, and in which the conductor lost his power of speech completely and took to meaningless sounds.

Finally the general offices of the N. Y. E. were in a tumult. Watervliet had wired the pleasing information that the Cannon-Ball was fifteen minutes late and had not yet whistled.

"She's wrecked!" lamented the general offices.

The Cannon-Ball was not wrecked. She was standing placidly in the red-clay cut six miles east of Northampton, like a domesticated cow. The smoke oozed peacefully from the mouth of her blunt stack, and the steam whispered in the cocks. All was calm.

And in the meantime her trusted engineer was making history. When he jumped from his cab and hopped across the culvert he turned toward the low ground that led up to the crest of the cut, and in a few minutes reached the top of the embankment.

Two persons were disturbed immediately. The girl saw Jerry coming before her comrade was aware of the overalled, grimy-handed, oil-stained engineer. She slid down from the fence. Jerry kept his eyes fastened upon the insulting green feather in the Swiss hat, and as he approached on the dead run the feather became more "sassy."

Its wearer was a tall, healthy specimen of manhood. He turned in time to meet Jerry's onrush, so that there was nothing unfair in the attack.

Hazelle emitted one piercing shriek, and then stood, wide-eyed, with her knuckles buried in her white cheeks.

Jerry weighed, perhaps, a hundred and sixty, and his antagonist was twenty pounds heavier. But the engineer was wire and muscle, and it was an even match—and a good fight to see, if Hazelle could only have appreciated it.

"Now fight!" hissed Jerry into the stranger's ear; "and fight your best, because I am going to do you within an inch of your life!"

For fifteen minutes the two circled on the top of the cut, swaying in each other's grasp at times, and again falling back under a rain of blows.

Jerry landed a scorching right to Swiss Hat's jaw, and Swiss Hat smeared Jerry

with a curling sweep that peeled away two inches of outer skin and filled the engineer's eyes with water.

Jerry smashed in a straight punch to the nose, and followed with a left to the ribs. Swiss Hat doubled Jerry with a right to the stomach, and Jerry closed his foe's right eye with a left hook.

In twenty minutes both gladiators had begun to weaken. They were drawing in their breath in great sobs, and the perspiration and blood mingled and ran down their faces in thin streams.

Twenty feet away Hazelle Hoisington stood speechless.

Jerry finished the fight suddenly with two crashing blows and a right-hander to Swiss Hat's face that toppled him forward. As he lurched into Jerry's arms he was met with a terrific left-hand swing to the jaw that sent him to the ground.

He lay still.

Jerry turned to the girl, pulling at his handkerchief.

"You — go — home," he gasped. "You made me do this; and to-morrow I'm coming up from Philadelphia and get you. I'm sorry to have mauled your friend. I don't know him. You tell him if I ever hear of his being with you again I'll give him worse than he got to-day."

Hazelle had begun to weep. The tension was ended. She turned to go.

"Here," said Jerry, stepping toward her, "kiss me to show that you've forgiven me. And kiss me on the left eye, because it's the only place that won't hurt."

She hesitated for an instant, but his arm was around her.

Then she picked out the uninjured eye and kissed it lightly.

"Where is your train?" she asked.

"It's waiting for me in the cut, and I've got to go. I'm an hour late." He looked at his watch. It was smashed and useless.



BOTH GLADIATORS HAD BEGUN TO WEAKEN.

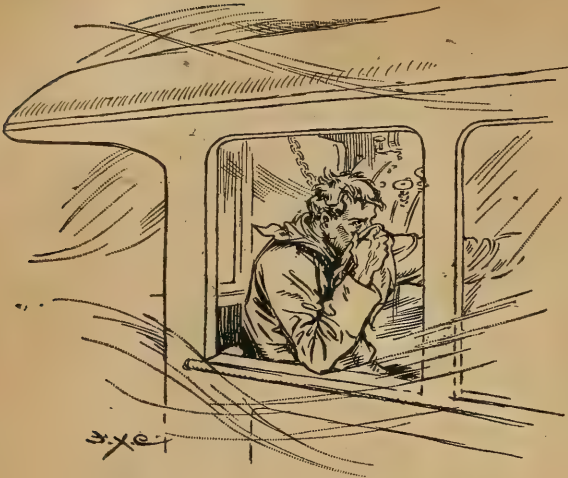
"To-morrow," he said. "Remember!" "Poor Jim!" she whispered, looking at the vanquished. "I never intended that things should go this far."

"You might as well bring him back to life," Jerry muttered. "I've got to go. Tell him to keep his hands off hereafter."

He started on a run. At the bottom of the cut he turned and waved a blood-soaked handkerchief.

She waved back at him briefly. Then he disappeared.

Ten frantic trainmen grabbed him and hurled him into his cab.



"HE'S A PIPPIN ON THE UPPER CUT."

"This," groaned the conductor, "is the end of you and me, and the ruination of the Cannon-Ball. We're an hour late."

"Shut up!" said Jerry.

He pulled the throttle open, and the Cannon-Ball moved forward. Coogan was staring at his battered face, but asked no questions.

There was no possibility of bringing the train into Philadelphia on time.

The lost hour would cost the N. Y. E. \$600, if there were no more delays, and Jerry would be discharged in disgrace.

There was no excuse to be offered. He realized it as he sat in the cab with his handkerchief pressed to his swollen nose.

"He's a pippin on the upper cut," mused Jerry.

Four miles beyond Watervliet lies the Kingston River. It is not a dignified, sensible river, running guardedly between its banks; but, rather, it is a sense-

less body of water, aimless, futile, seven inches deep and two miles wide. The N. Y. E. had built a trestle across this two-mile stretch of swamp and had guarded the railway approach with four kinds of safety signals.

All of them were working as the Cannon-Ball thundered up the long incline. The trestle was burning grandly and effectively!

Four of the central spans had disappeared into the swamp in fiery cinders, and Jerry Skeldon stopped his train fifty yards away, and breathed a long, deep breath.

A burning trestle is not, technically speaking, an act of Providence; but it is almost that. No train in the world can pass over a burning trestle, especially when four of the spans have disappeared. The government could not collect from the N. Y. E.

In three hours a relief-train had been rushed forward under special orders. The mail-train was ordered back to Whitehouse, where the N. Y. E. connected with the Western Pennsylvania, and a trainload of mail arrived in Philadelphia later on, twelve hours late. Skeldon was saved.

The government read the N. Y. E. report and growled, but it said nothing.

In the superintendent's office that stern official looked at Jerry's bruised face.

"Get that mug at the Kingston trestle fire?" he asked sharply.

"No," replied Skeldon truthfully, "I got it somewhere else along the line. How would you like one to match it?"

FIRST - FLORIDA CONDUCTOR.

CAPTAIN J. R. TUCKER, who got his final clearance papers in this world a few months ago at St. Petersburg, Florida, is said to have been the first conductor to run in that State. He was born in South Carolina in 1835, but his parents went to Florida when he was a child.

His first railroad experience was as conductor on the first train of what is reported to have been the first railroad in Florida. It ran from St. Marks, on the Gulf, to a

point near the Georgia line. At the beginning of the Civil War, Mr. Tucker resigned as conductor to raise a company of cavalry, and he served throughout the war on the side of the Confederacy.

After the war he returned to railroading, and was still in the service when he reached his seventieth year, when he was pensioned by the Atlantic Coast Line. The captain's death was unexpected, as, in spite of his seventy-four years, he was hale and active.



Told in the Smoker.

BY OLIN CRAWFORD.

The Things that Happen to the Captains of the Grip in the Day's Run
Are as Varied as the Lines of Goods They Sell, and as
Exciting as Some of the Stories They Tell.

"Doc" Pants for Pants.



“All the tough experiences in sleeping-cars I ever heard of, the case of ‘Doc’ Hough was about the worst. I guess some of you fellows have heard of the ‘Doc,’ who got his title selling patent medicines before he climbed up into the shirt trade. He blows in here now and then. Big, fat man, with chin whiskers and glasses.”

Frank Pomeroy was the story-teller. Frank travels after the wholesalers for a Brooklyn woolen factory. He was the center of a group of loungers in the story-tellers' corner in the lobby of the Broadway Central, that oasis in the wholesale district where the traveling salesmen gather by hundreds when the ending of the road season brings them trooping back into New York.

“The ‘Doc’ had only just blossomed out as a shirt seller, and he'd togged himself up regardless for his first trip. New clothes from dome to ground—gray der-

by hat with a bow in the back, sporty suit in checks, red waistcoat, and a fine outfit of neckties and fancy shirts. You'd know somebody was coming, to see the ‘Doc’ headed your way.

“At the Grand Central he got on a train for Buffalo, which was to be his first stop, tucked himself away in a lower berth and slept like a log till they rolled into the Buffalo yards. As he groped around for his clothes he couldn't find his trousers into which he had stuffed his watch and all his money.

“He rang the bell for the porter and asked him to help in the search. Together they groped around under the seats, through the bedclothes, and all over the car, but there wasn't a sign of trousers, money, or watch.

“Of course, ‘Doc’ got mad. Wouldn't anybody? He broke into some fiery talk and swore he'd have justice if he had to carry the case to the United States Supreme Court, and tore around until the conductor came and tried to pacify him.

“By the time they got into the sta-

tion the whole train had been searched for a pair of trousers, and the only pair that could be found that weren't in use belonged to the chef in the diner, and were so small the 'Doc' couldn't get into them at all. If he had they'd have fitted him like a pair of tights.

"The conductor was for putting him off, considering he didn't have a ticket any farther. That made him madder than ever.

"Without any pants on?' he yelled. 'Not in a thousand years! I'll stay where I am till the railroad buys me a pair. Think I'm going to walk up Main Street, Buffalo, without 'em? What do you think I am?

"I stay right here till I get a pair of pants, and that goes!

"Well, the conductor thought it over, and as it was about starting time, concluded to carry him on free for a while, for he didn't quite like the idea of leaving a man with so little clothing on a platform.

"The train rolled on westward, and the 'Doc' stayed cooped up in his berth with his knees drawn up to his chin, thinking hard. Along comes the conductor, peeks in at him, and says: 'I don't want to interrupt your train of thought, but the farther on you go the farther back you may have to walk, and if I were you I'd get out.'

"That was too much for the 'Doc.' He stuck his head out through the curtains, with fire in his eye, and hissed through his teeth some language so red hot that he wasn't bothered any more with suggestions. He hadn't had any breakfast, and he was ready for anything next to murder.

"After a while he began to hunt through his vest and coat to see if he couldn't scare up some loose money, and he came across a two-dollar bill that he had tucked away in a pocket and forgotten.

"That made him feel better, and he called the porter and asked him if he couldn't get him something to wrap around his legs so he could get off at Dunkirk, the next stop, without being arrested.

"What's the matter with letting me have your pants?' says the 'Doc.' 'If you will I'll send you ten dollars.'

"What! And me go pantless roun' this heah car wif ladiës abo'd! Not foh me, boss.—But I'll get yo' an ole blanket.'

"So, when they got into Dunkirk, the 'Doc' picked up his grips and, with the blanket wrapped round his legs, got out and headed for the nearest clothing-store, with a crowd of kids at his heels. On the way he did some lightning calculating. He felt that he couldn't hold out any longer without something to eat, and, saving out the price of a ticket to Buffalo, he would have only seventy-five cents left for trousers.

"If he could get a pair for that price he could get back to Buffalo in time to hunt up a friend who lived there who would lend him money, and to see his customers. But the best he could get for his money was a pair of blue overalls that fitted skin-tight and didn't come down to his shoe tops.

"With his gray derby, red waistcoat, checked coat and skin-tight, short overalls he blew into Buffalo, with a grim and determined expression on his face and looking as if he'd just stepped off a vaudeville stage. And there he got another shock. His friend was away and wouldn't be back till night, and he didn't have any time to spare before getting after customers.

"What did he do? Why, he went around to see the trade just as he was. And he made a big hit, too. He couldn't help getting a hearing everywhere, togged out like that, and his tale of what he'd been up against put everybody into such good humor that they gave him good, fat orders."



Frank Gets His Man.

ANOTHER sleeping-car misfortune that had a less profitable ending, though it deserved a better one, considering the ready wit displayed, was that of Frank Peebles, a traveling salesman for a Chicago shoe-house.

He had hoped to get a large order from a retail house in Philadelphia, but was disappointed. The head of the concern, who himself looked after the replenishing of stock, was out of the city and wouldn't be back for several days.

The following night, Peebles was a passenger on the Pennsylvania Special that jumped the track and tumbled into the river near Conemaugh a few years ago. At the time of the accident he was sound asleep in a lower berth. He was awakened by a crash and the violent plunging of the car.

They were rolling down the steep embankment into the river, and it seemed to Peebles, as he was battered against the walls of his berth, that the car was turning over and over. A man was pitched out of the berth overhead, and, breaking his fall by clutching the curtains on the way, landed in a heap in the aisle, directly on top of Peebles, who at the same moment had been tossed out of his own berth.

They both lay there for a moment, too much startled and bewildered to stir. The salesman was the first to pull his wits together. Glancing up into the face of the passenger who lay sprawling over him, he made a discovery.

"Why!" exclaimed Peebles, "you're the man I was trying to find in Philadelphia. I want to show you the finest samples in the shoe line you ever saw."

Did he get a fine, big order? He did not. That was one of the times when a brilliant display of business genius went unrewarded. The man on top of him was a serious-minded, sanctimonious old fellow who didn't believe in talking business in such a crisis.

"The young man who will attempt to sell shoes in a tragedy of this kind," he said, "does not deserve to be encouraged. You ought to be thinking about helping the wounded instead of your own selfish interests."



The Girl Who Loved Diamonds.

JEWELRY salesmen, more than any others, are likely to have some stirring adventures in their travels. The men who go out from Maiden Lane are always worrying on the road over the danger of thieves, and a live and pressing danger it is. One of them, Charles Bellinger, started out from New York to Chicago on a New York Central train, a few years ago, with diamonds worth \$80,000 in his wallet.

At dinner, as the train rolled along the Hudson, he was seated at a table in company with a distinguished-looking, elderly woman and her extremely pretty daughter. He fell into conversation with them, and it came out that the two were on their way back from Europe to their home in the West.

Then it developed that the girl had been a classmate in college with Bellinger's niece. During the conversation Bellinger chanced to bring out the fact, which he didn't often do with strangers, that he was a salesman for a jewel firm, and they began to talk about diamonds, a topic in which the girl showed the liveliest interest.

"They have such an uncanny fascination over me that I hardly dare look at them," she said. "I think there's witchery in such stones."

On his return to the sleeper he observed that the mother and daughter had berths in the same car as his own.

When it came bedtime, he pulled out his wallet of stones and put it under his pillow, as was his custom. That is where nine diamond men out of ten stow their gems at night. Then he crept in and was soon sound asleep.

Long afterward he was awakened by a movement of the curtains. He lay perfectly still, with his eyes half open, watching. From between the curtains something was stealing in upon him, very slowly and cautiously.

Bellinger waited for a moment, then grabbed for it and caught it. It was a girl's arm.

There was a little stifled scream of fright, a pleading whisper, and Bellinger looked into the face of the pretty girl who had told him diamonds had such a wonderful fascination over her.

The pitiful look of fear in her eyes and the thought that perhaps, after all, she had been a college friend of his niece, decided him. He let the arm go. And the next morning at breakfast she met him with a bow and a smile as if nothing had happened.

A few weeks later Bellinger got back to New York and looked up his niece. He described the girl he had met on the train and gave her name.

"Why, yes," exclaimed the niece, "she was in my class in college. She had an

unpleasant experience there, too. Somebody accused her of stealing some jewelry from a room in the dormitory. Then it turned out that her father had embezzled some money out West a few years before, and people were mean enough to hint that she had inherited his thieving instincts. They couldn't prove anything against her and she couldn't have been guilty."

Her uncle dropped the subject. A year or two later there was a scandal in high life over the disappearance, during a house-party in Chicago, of a diamond pendant. It was found in possession of a wealthy young woman who had been a guest at the affair. The theft was attributed to kleptomania, and she was not prosecuted. It was the same girl.



Ludwig's Thief.

LUDWIG NISSEN, one of the largest wholesale jewel dealers in New York, used to travel for a diamond-house. One night, just as in the case of Bellinger, he was awakened in his berth in a sleeping-car by a hand stealing under the curtains.

Under his pillow was a large fortune in jewels and he was wide-awake in an instant. The hand disappeared. He pulled aside the curtains and sprang out into the aisle, but nobody was in sight.

"I'd like to warn everybody in this car that there is a thief on board," shouted Mr. Nissen.

Then he crept back into his berth and went to sleep. He knew there would be no more danger, with the thief scared and all the other passengers nervous and on the watch.



An Inspiration in Hats.

"IT takes a good, big inspiration to get around the stubbornness of some customers when they make up their minds they don't want to buy," said Charles Schaeffer, who sells men's hats to the wholesale trade.

"There was old Schwartz out in St. Louis, for instance. He was as hard to budge as a stone wall once he'd made

up his mind he didn't want anything. But I did change his mind once. I'd blown into his city with a pretty fine line of goods and big expectations, and it made me sore when he turned me down.

"'You might just as well not waste your time with me,' says he. 'I'm not buying a thing.'

"At last I managed to induce him to come around to my hotel to look at my samples, though all the way there he kept telling me that I was wasting my time, for he wasn't going to buy. When we got there I pulled out some swell Javas that I thought might fetch him, but he kept curling up his lips and saying, 'Pooh! Pooh!' at everything I had to show.

"He was glad to stay to dinner with me, though, and it was while I was ordering the eats that I got my inspiration. A comic-opera company was spending the week in that hotel, and one of the members of it was a man named Cramp, a school-day friend of mine.

"Catching sight of Cramp out in the lobby, I got after him, leaving Schwartz sipping a cocktail. It took me about five minutes to fix up the scheme, and I got back to Schwartz just as the steak was coming on.

"Pretty soon I noticed that something out in the lobby had caught the old man's eye. Then in came Cramp wearing one of my Java hats. He was a swell-looking boy, Cramp was, and the hat was particularly becoming to him. I could see that the old man was impressed.

"Another minute another handsome, natty, comic-opera man passed by with the same kind of headgear, and after a while two more with my Java hats—as fine-looking young fellows as you could find. And all the time we were eating they kept hovering around where Schwartz could catch a glimpse of them now and then.

"He'd never seen any hats just like them before, for they were a brand-new line, and while he ate his dinner the idea began to soak into his mind that they were a fad that was coming in with a rush.

"'I don't know but I'd like to take another look at those Javas,' he said

when we'd finished. And he wound up by giving me a ten-thousand-dollar order. I guess he was sorry afterward that he did, for he had hard work getting rid of that lot.

"Next time I meet him he looks at me out of the corners of his eyes and says, 'Charlie, it's a funny thing to me that everybody seemed to be wearing those blamed Javas the night I bought 'em, and that I never saw another before or after.'

"Well, you know fashions change quickly,' I told him."



Tom's Misplaced Gallantry.

TO turn to a more romantic subject, a story told by Max Kaufman, the road man for a Bond Street clothing-house, goes to show that a man is wiser not to force his way into other people's troubles. "That was what Tom Hennessey was convinced of, anyway," said Kaufman.

"Tom had as much of an eye for the ladies as any man on the road, and it was always getting him into trouble. One time he and I were on the same train on the Michigan Central, bound for Detroit. There was a dapper young Frenchman in our car a few seats ahead

of us, and just across the aisle from him was a good-looking girl with yellow hair.

"Pretty soon Tom got the notion that the Frenchman was annoying the girl by trying to flirt with her, and he got madder and madder about it till at last he got hold of Frenchie in the smoker and told him what he thought of him.

"I've been told Frenchmen couldn't fight. But, say! You ought to have seen that one! Most peculiar scrap I ever saw. I don't know whether he was carrying out the methods of his country or not.

"I understand most of 'em use their feet over there. But he didn't. He used his teeth and his finger-nails. And maybe he didn't do some damage. Why, Tom looked as if he'd been tangled up in a mowing-machine when that Frenchie got through with him. Tooth and finger-nail marks all over him.

"He pretty near choked the life out of Frenchie to even things up, but there wasn't much satisfaction in that, considering it would take him six weeks to look respectable again.

"But the worst of it was that Frenchie got the girl, after all. And you ought to have seen Tom squirm when he caught one of the disgusted looks she kept throwing at him. Being chivalrous to ladies didn't appeal to him for months."

HOW HAIGHT WON HIS MEDAL.

IT is a trite observation that work on a railroad nourishes courage. Grit and daring is a characteristic of railroad men. Charles W. Haight, of Utica, New York, is a good illustration of the cool-headed engineer, who stepped out of his cab to the pilot and picked from the rails a three-year-old child, who was about to be run down.

For doing this Haight got a medal from President Roosevelt, under an act approved by Congress, February 25, 1905.

Haight is of stocky build, about five feet eight inches in height, and weighs 190 pounds. He is about forty years old. He talks with a snarl, but that "is just his way."

Haight distinguished himself near West Winfield on April 26, 1905. Not far from the railroad near that village stands an old house where a family of people lived. They

had a large family of children, and the railroad men who traveled that road were familiar with the place, for the children were often seen at play about the house and near the crossing. Such a place enginemen and firemen watch pretty keenly.

Haight saw three of the little ones on the track. His train was going at a good rate, he put on the emergency, but there was no hope that the train would stop before the children were reached.

He leaped through the cab window, slid along the boiler to the pilot, and, reaching forward, gathered into his arm the three-year-old youngster who stood bewildered upon the track. Two older children, in the meantime, had run from the track. Haight was not injured, nor was the child hurt.—E. A. S.



Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 24.—The Brief Chronicles Touching on the Ups and Downs, the Ins and Outs, and the Rise and Fall of a Con Who Rejoiced in the Name of "Jackdaw."



HIS brief chronicle touches a few of the high points in the career of one J. D. Williams.

"J. D." had raven hair and more than human friendliness, so we abridged his given name to the more euphonious and appropriate appellation of "Jackdaw."

He will answer to that convenient call all the days he remains on the railroad; for no man ever draws a nickname on a railroad and lives long enough to part with it.

Once upon a time, a great many years ago, I worked in a railroad office with Jackdaw.

Heaven bequeathed to Jackdaw a playful, kittenish disposition. The office was to him what the spring-morning meadow is to the lambkin, or the barnyard is to the month-old calf.

Existence to Jackdaw was a constant round of frolicsome gambols, foolish quips, jumbled songs, and hodgepodge whistling, until all of us grew weary of his presence and longed for him to be removed, either quietly to some other department, or from the face of the earth—we did not care which.

It is a painful and disturbing thing to

be constantly associated with a man who is chronically funny.

Not a real humorist, understand, for a humorist is often the saddest and most silent of men; but one who bubbles over all the time, who finds every trivial incident the source of explosive "Ha-ha's!"

One who profanes everything sacred with his hilarity, and whose rude jollity has no respect for the feelings of others.

One who butts in with witless and irrelevant observations, who holds you long, who inflicts you with pointless jokes, and tells you stories that have no beginning, no end, and no substance.

You find this type everywhere. And it is no surprise that one of a number belonged to the working force of our station.

Jackdaw had a sort of foolish cheerfulness; a certain irrational, impromptu, ill-governed gaiety that irritated the rest of us. For, like all clerks, we were serious-minded and solemnly impressed with our duties.

Disease, death, and disaster had no terrors for Jackdaw. He attended a wake or funeral with liveliest zest. With a breezy disregard, he bumped into all the misfortunes that befell. He knew neither sorrow, sigh, nor a regret.

He was so persistently and boisterously funny, so inappropriately good-natured all the time, that he made us weary and sick of him.

We dissected the fellow in this wise: that he had a good digestion, and, therefore, felt physically fit and fine. Furthermore, we put it down, and, by unanimous consent, that, in the haphazard chances of birth, Jackdaw had been short-changed on brains. Therefore, he did not know, and could not know, and never will know, what a nuisance he is to others, constantly running his joy machine high-gear and without governors.

One summer afternoon Jackdaw had an old car, loaded with bone-fertilizer, placed in the material-room of the canning factory, and all the girls walked out.

There was no engine to take the car out until the following morning, and, in the meantime, the idiot actually laughed his head off over the joke.

This is figurative speech. His head did not actually come off until the following week. Then it came off neatly and effectually, and that made the whole

affair such a capital joke that all the rest of us let out an exultant laugh in a long, loud, raucous chorus.

The routine of the work settled down to a decent calm, and we had less exhilaration, but better results.

In the office, we forgot Jackdaw as speedily as possible. His landlady made numerous inquiries about him, likewise a tailor, likewise a laundryman, likewise a florist, likewise a—but what's the use?

Let all that pass. Jackdaw was but a memory which faded like the crimson bosom of a fifty-cent shirt.

One hot day in the following summer we were digging away at our desks, buried in a rush of work, when a head thrust in at the open window, and a mocking, jarring voice saluted us:

"Bend to it! Grind away, you slaves! Mush on!"

It was Jackdaw.

He had run down to the station from a freight-train on the siding.

"I didn't know any better for a long time, either! Lean over there! Hollow your chests a little more! Strain your eyes! Come back after supper! Be here



"BEND TO IT! GRIND AWAY, YOU SLAVES!
MUSH ON!"

Sunday! Stay with it! Heave to! Altogether now!"

This deriding taunt drew the duster and a cake of soap from the interior, but Jackdaw ducked, and slid back to the engine. He had become a brakeman.

We never knew how he got on, or how he remained after he got on, but in time he became a conductor.

Then we all paused long enough to again recall memories of Jackdaw, and to speak the wonderment that possessed us of how it was possible for any one with a thought ganglion no larger than a walnut to be trusted with the responsible duties of handling a train.

In reality, we should not have marveled at this. For, when the personnel of an organization, either railroad or industrial, is well known at close range, the same wonderment intrudes itself that there are so many featherweights all the way up, and now and then capping the top. How they got there, and why they remain, puzzle the underling.

But back to Jackdaw.

We knew he would be fired soon.

We knew exactly how foolish and light-headed he was. The most generous estimate of our office gave him but six months.

Jackdaw got into trouble a number of times, and was on the carpet with some regularity; but it is the caprice of the Fates to protect a certain brand of mankind known as the fool. Jackdaw got through his first year with some scares and a few scars. Then we kindly extended his limit to another year.

That was before the days of tonnage and freight classification in the yards. Trains, not so many as now, came in with mixed loads, and went out much the same way.

All that was asked of a conductor was to have his bills in rotation to correspond with the cars from the engine to the caboose.

Jackdaw had a green brakeman—a Dutch boy.

By and by, they took the siding out in the country to meet another freight-train.

When they were in the clear the Dutch boy picked up the bills and accidentally dropped them on the caboose floor, badly disarranging them.

Jackdaw came down with a furious explosion.

"Look what you've done!" he cried. "Got them bills all mixed! Now we've got to git out and switch this train all over again to git 'em in order. You got to be careful when you handle bills. Look at the trouble you've made us! It'll take over an hour—"

Jackdaw actually sent the Dutch boy over to see the engineer, and explain that the train would have to be made up again.

In a little while the new brakeman came marching back to the caboose.

"What did he say?" demanded Jackdaw fiercely.

"He ses, you switch dem bills!"

"Did he?" yelled Jackdaw. "Wait till I git up there! I'll tell him a few things."

At the office we could not decide if Jackdaw was playing a joke on the Dutch boy, or if it hadn't occurred to him to switch "dem bills" until the engineer mentioned it. Judgment suspended.

Anyway, Jackdaw went overhead and engaged the engineer in talk.

The engineer was making some repairs to the engine. He had crawled under it, when the Dutch boy, impelled by a lingering curiosity over the affair, came up.

"Go back to the caboose," said Jackdaw hurriedly, "and get that iron frog under the seat. We've got to have it to fix the engine. It's a little heavy, but you can tote it all right. Hurry now!"

The Dutch boy trotted off, and in time came lumbering back with one of those old-fashioned iron frogs.

Just as he reached the tender the engineer came crawling out from under the engine.

"Never mind, now," said Jackdaw. "He's got it fixed, so you can take it back to the caboose. Hurry! We're going to git out of here in a little bit."

The Dutch boy struggled slowly back past twenty cars, staggering and exhausted under the heavy load.

That was merely Jackdaw's playfulness. They did not need the frog at the engine; but in those rollicksome old days all green brakemen were put to stunts of that kind.

Old heads recall, in their early days, of fruitless quests from yard-office to

roundhouse and storeroom for the elusive "left-hand monkey-wrench," "square circles," and other legendary bric-à-brac.

After a day or two, by the Dutch process of percolation, a thought entered the head of the new brakeman.

"What for," asked he, "I carry dat frog back? Why didn't you wait till the caboose come oop and den put it on? Eh?"

"By George, that's so!" exclaimed Jackdaw. "We could have done that. We'll remember that next time, Germany."

The Dutch boy was not assured. He thought it over with native persistence. "By *Himmel*," he exclaimed at length, "you make a monkey of me mitt a frog!"

With this conclusion the incident closed.

Some time later, Jackdaw took a passenger on at a way station, bound for Chicago with a car of cattle.

Shipments of cattle are usually accompanied by an attendant, who rides in the caboose.

To this one the caboose, the train, and the scenery were all objects of open-eyed wonderment. He was fired with the liveliest interest, and asked Jackdaw a string of questions about each village, side-track and water-tank. He was so verdantly innocent and curious that Jackdaw began to spin "Arabian Nights" yarns.

"See that house over there," explained Jackdaw—"that log hut by the woods? The Jesse James gang surrounded that one night and robbed an old miser that lived there of a million dollars! See this little town we're passing through? Ain't much here any more but the sawmill and a few shacks. Abe Lincoln was brought up here, and worked on the section right where you're riding until they elected him President.

"See that derrick over there? Thought it was a windmill, didn't you? That's where you git another guess. That's the first oil-well John D. Rockefeller ever

dug! Right there's where he got his start. Dug this 'un with his own hands, too, and begged his tobacco, while he done it, of that old man that lives in that shanty there!

"See them thickets, and that creek winding around down there? That's where Roosevelt comes every year to hunt rabbits. He ort to be there now. This is his time.

"By George, that's him! See that fellow over there by the underbrush?" Jackdaw pointed excitedly. "That's him,



J. NORMAN LIND.

"GOT THEM BILLS ALL MIXED! NOW WE'VE GOT TO GET OUT, AND SWITCH THIS TRAIN ALL OVER AGAIN TO GIT 'EM IN ORDER."

surer than thunder! Bill Bryan taught school in this town we're passing through until the year sixteen-hundred-to-one, I think they say. Then he went to Nebraska."

The passenger seemed so blissfully ignorant, and was so importuning in his curiosity, that Jackdaw finally grew weary and decided on another venture.

"Say, Germany," he said on the side to the brakeman, "let's have some fun



THE PASSENGER WAS CURIOUS.

with this fellow. You tell him to watch me. Tell him I have fits. Tell him I fall over and have crazy spells, and for him to keep his eye on me, as I might do an awful lot of damage.

"Tell him, if he happens to be alone when one comes on me, to get outside quick and hold the door shut, and keep yelling as loud as he can till some one comes. You clear out, and I'll have one of them convulsions. I'll scare him out of his boots!"

Soon Jackdaw went overhead to give the Dutch brakeman a chance to caution the passenger.

Somehow, the memory of how Jackdaw had him carry that iron frog from the caboose to the engine and back came to him, so he told the passenger this:

"That conductor's a fool. He gits fits sometimes. If I don't bin here, you want to watch out for him. Maybe he lay you out with a poker. You watch him, huh—purty close."

"Say, don't you go away," protested the passenger.

"But I got to be out some," the brakeman explained. "But I tell you what you do. If he start to have a fit, you haul off and hit him between the eyes—hard as you can drive. That's what I do. That's what he wants done. It jars up his nerves. Then he comes out of it, and quick, too. Don't be afraid. Shust hand him a good one. He's ust to it. If you don't, he might kill you and himself, too. The quicker you land on him the better."

When Jackdaw returned the Dutch brakeman passed him the wink, then went out on top a few cars away and sat down on the running-board to await developments.

The passenger was curious, but sat in silence. He watched Jackdaw nervously.

All at once, Jackdaw stiffened out with a sort of paroxysm. He fixed his eyes with a strange, hard stare on the passenger. He clutched at his hair with both hands, and let out a series of blood-curdling yells like a hostile chief. He followed with a few rigid convulsions, then commenced kicking and striking in a blind frenzy, and edging over toward the passenger.

At this moment, all calculations went wrong. Jackdaw's lights went out. There was a sound in his ears like the ringing of a blacksmith's anvil; the circumjacence was filled with dancing moonlets, and Halley's comet passed so close that he heard the swish of its tail.

They poured a gallon of water on his head, and let it trickle down his spinal column.

"How many was killed?" he asked faintly, as he began emerging from the tunnel.

"You're the only one that's hurt," answered the Dutch brakeman, who appeared immediately after the catastrophe.

"Seventy-eight hit us, didn't they? How many cars did they smash up? Has the wreck-train been called?" Jackdaw was growing stronger. "They hit us an awful smash. He must 'a' been turnin' 'em some. I remember it now. I went up through the caboose and come down in that sheep-pasture, didn't I? My—skull's—crushed in—ain't—it?"

"You been all right, purty quick now," assured the Dutch brakeman. "Dey ain't been not'ing wrong. You shust had one of dem fits. You better lay down on de seat a little while and den you be all hunky!"

Jackdaw stretched out as directed and emitted a series of groans on unsympathetic ears.

The Dutch brakeman handed over his tobacco to the passenger. It was the only token of appreciation he could think of.

The passenger grinned and rubbed his "village-blacksmith" knuckles.

"It worked bully, aint it, eh?" said he. "One biff, and I bring him out of it. Dat's quick medicine, by Jacks! I never hears of that before."

In course of time the walnut lump between Jackdaw's eyes diminished in size until it disappeared altogether, and, so far as I know, the antidote supplied by the simple-minded stockman cured him for all time of those sudden violent spells.

In the office we continued to wonder how Jackdaw held on. We had graciously allowed him five months, then a year, then two; but he seemed to come to no bad end. Our force scattered. New men came. The old ones were transferred, dismissed, or died—but Jackdaw was still running a train.

It had been the unanimous verdict

of our office that Jackdaw was a fool and a failure. It hurt our pride and reflected on our judgment that he kept right on every month drawing a better salary than any of us.

By consulting the blue-print of Jackdaw's career, which went into the future only a short distance, and which reflected largely on his past performance with us, and was drawn by the master minds of our office, Jackdaw should be off-bearing in a sawmill, or responding to some brick-layer's sharp call for "mort."

Soon we heard from Jackdaw again in another rôle.

Very early one morning he received a message from the superintendent to stop at San Piere, a way station, and pick up three lady passengers for Monticello, which point they wanted to reach for an early morning connection on another road.

Jackdaw stopped, and politely helped them aboard the caboose.

They were visiting delegates to some sort of woman's club or association that had held a district meeting and "high doings" at San Piere the day and night before.

Years ago it was a common thing for



"HOW MANY WAS KILLED?" HE ASKED FAINTLY.

a freight-train to receive orders to carry passengers between local stations. The superintendent was appealed to daily by stranded or belated passengers, and he usually "came across" with the desired permit.

The practise was greatly abused, and often led to serious complications, so that now it has been almost entirely discontinued.

In functions of this kind, Jackdaw was obsequiously polite, and with it—being a fool—he injected his brand of ceaseless and pointless conversation, which, like the woodland brook, never stops.

The ladies were hardly seated in his caboose when Jackdaw began entertaining them with side-lights on the life of a railroad man.

He told them of its hardships and privations. How for six months he had not sat down at the table with the "dear ones at home." How, every minute, he expected to be killed and taken back to them, mangled and unrecognizable.

The ladies were ignorant of railroading, and being impressionable and tender-hearted, they let out many ejaculations of surprise and sympathy.

The brakeman was visibly affected, too. He fidgeted uncomfortably in his seat for a while, then let out a half-smothered something that sounded like, "Well, I'll be hanged!" Can you beat that?"

Then he slid out, went four cars ahead, and sat down on top to form a picture of Jackdaw at home with the "dear ones." He knew that when Jackdaw had that opportunity, he could be found up to the last minute at Casey's pool-room resort. And as for any accident befalling him—they would have to invent some new processes in railroading first.

One of the ladies noted in a little memoranda-book the salient points of Jackdaw's experiences, and they agreed among themselves that this had suggested to them a broad field of endeavor for the Woman's Club, for ameliorating the working conditions of the poor, abused trainmen.

When Jackdaw had expended himself in this direction to the fullest, and had drawn the last tear and the last expression of surprise, he took another turn.

"You ladies will excuse me," he said, "but I'm going to prepare a little break-

fast. I might ask you to take a bite with us. But I wouldn't offer no lady what we have to live on. I wouldn't, mum; I wouldn't, indeed.

"Yes, mum; the railroad supplies the provisions. They call 'em specially prepared rations. But I think it's only to dope us so we won't fall over on duty with exhaustion.

"I'm telling you true, mum; we're fed worse than the Siberian exiles of Africa. The stuff the railroad furnishes us ain't fit for eny human bein' for food.

"But what can we do?" Jackdaw straightened up in fierce appeal. "Suppose we quit, somebody else would run these trains. It might as well be me go to my doom as eny one else!" Jackdaw uttered this with dramatic self-sacrifice.

He poked up the fire in the cabin stove. Then he put on a pan of water, and near it an empty can; then he fumbled around and brought out the dope-bucket. He jabbed the fork deep into it, and held up the oily ravelings.

"Yes, mum, it's true," said he, curling his lip with disgust. "It's the main item of our food supply. It's furnished by the company in buckets. It's the Mexican shredded macaroni in native oils. It's made by Eyetalians in Chenoa, Mexico. I want you to taste it. Then you'll have some idea what it is to be a railroad conductor."

Jackdaw transferred a pound or two of packing from the dope-bucket to an empty can on the stove and set it well back, so that it would not overheat, but simmer gently.

While it was slowly filling the cabin with a nauseating stench, Jackdaw got out a loaf of bread and placed it on a chair. He next brought out the cabin hand-saw and, placing his knee on the loaf, deliberately sawed off half a dozen slices of bread. He did this with a labored, ripping sound, caused by implicating the chair-leg with the bread.

"This is not like the bread my mother used to make," he said with a sorrowful, catch-in-the-back grimace. Then, ruefully: "I never expect to eat anything like that again. They furnish us Macedonian bread, made by pneumatic compression out of Soey beans and cactus-fiber."

Jackdaw stirred the dope and added a little salt.

Then the engine let out a long whistle, and he looked at his watch in quick surprise.

"Goodness me!" he exclaimed. "We're there. This is Monticello. I'm sorry you're not going farther. The caboose will stop right at the platform. Yes, we'll come to a dead stop. Can't be too careful."

for its reckless disregard of human life, reprov'd for not permitting the men to see the dear ones at home, and bitterly denounced for forcing a food supply upon their men wholly unfit for human consumption and "inferior to that which we supply to our domestic animals."

"We assure you, sir," the communication continued, "this fight for better con-



"THIS IS NOT LIKE THE BREAD MY MOTHER
USED TO MAKE."

If the lady delegates had looked, as the train pulled out, they would have seen Jackdaw part with his morning repast. He grabbed his can of Mexican shredded macaroni before it got any hotter and shied it at a scampering cat trespassing on the right-of-way near the depot.

But in time the superintendent received a long and serious communication from a certain ladies' club. It called attention to the company's barbaric treatment of its trainmen. The road was denounced

conditions for trainmen, which is hereby undertaken by this club, will be carried to the national body of the Continental Association of Woman's Clubs."

This started something.

There was a neat bunch of correspondence, and it all passed to Jackdaw for full explanation.

It came to Jackdaw under register, so that he gave his receipt for it, and could not come back with the claim that papers did not reach him.

Jackdaw looked the papers over care-

fully, and a certain ominous tone of the memoranda from the superintendent to the train-master led him to the hasty conclusion that he was up against something.

So Jackdaw, with a ceremony of mock seriousness, touched a match to the papers, and the caboose stove did the rest.

The wind was blowing a gale that day, and, a little farther along, Jackdaw deliberately fed his way-bills and other papers to it.

At the next station he sent the following telegram to the train-master:

High winds blowed my bills and some valuable papers out of caboose near mile post 208 between Raub and Wadena, north side of track. Have section men recover them and send them in on 33.

The section-men got instructions; and, sure enough, they found the bills and some papers. But the correspondence with the Woman's Club was not among them. Strange to say, it was never found, although diligent search was made. Stranger still, there was no resurrection. File numbers and carbon copies were not used so extensively then as now.

Jackdaw congratulated himself on his cleverness in "putting one over" on the

officials by means of a blaze, a high wind, and telegram that explained all.

Long, long afterward, I met in the office the clerk who threw the cake of soap at Jackdaw when he bellowed at us through the window to "Grind away."

"S'pose Jackdaw's working in the brickyard by this time, eh?"

"Believe me or not," I answered, "but that fellow's running the package-local right now."

"What?" yelled the clerk.

And another long time afterward I had gone away, and had forgotten the road and all its associations, when, one day, I was a passenger on one of its through trains—nine coaches, and five of them Pullmans.

I handed my pasteboard to a good-looking conductor in a spick, span, gold-braided uniform, and as dignified and correct and courtly as a first lieutenant in a West Point parade. He gave me a look through his gold glasses, and a smile overspread his face.

"Mush on!" he said in an undertone. "Grind away, you slave!"

It was Jackdaw!

Jackdaw, the fool! Our erstwhile wheeler of sawdust. Our carrier of "mort." Our brickyard laborer!

Only "nit."

PENNSY'S STEEL EQUIPMENT.

WHAT is probably the largest steel passenger-car equipment owned by any railroad in the world is that of the Pennsylvania Railroad, which, with the cars just completed and those in course of construction, has six hundred and thirty all-steel passenger-cars. With this large number of steel cars the Pennsylvania Railroad is now to start the operation of all-steel passenger-trains on some of its lines.

On August 12th, 1906, the Pennsylvania Railroad announced that all future passenger equipment would be built of steel; not only steel frame, but steel and non-collapsible in every particular. In planning the cars and establishing the standards, which are now copied in all Pennsylvania passenger-cars, no expense has been spared to build a coach which shall provide the greatest possible strength, a steel framing which can not be affected by fire, an inside lining which is absolutely unburnable.

The Pennsylvania Railroad in November,

1906, ordered 100 all-steel passenger-cars. Since that time, additional orders have been placed and there are now in service on the company's lines 245 coaches, 10 dining-cars, 21 combination passenger and baggage cars, 29 baggage-cars, 18 postal cars, and one company car; a total of 324 cars.

In course of construction there are 140 coaches, 34 dining-cars, 48 combination passenger and baggage cars, 4 baggage-cars, 42 postal cars, 27 mail storage cars, and 11 baggage and mail cars.

The Pullman Company, at the instance of the Pennsylvania Railroad, for the past four years, has been at work designing all-steel parlor and sleeping cars. Some 500 such cars are shortly to be completed.

With the all-steel passenger equipment now in service or on order, and some 250 steel cars to be ordered on the 1910 passenger equipment program, this railroad, in a short time, will have in service about 900 of its own steel passenger-cars.

FORD QUILTS "OS"ING.

BY "A.S."

The Trouble That Came to a Night Operator While He Was Getting His Beauty Sleep.

BR, Br," "V," clicked the train-despatcher's wire. Sam Ford, the night-operator at Bryan, lay snugly wrapped in a blanket, with his head near the sounder, fast asleep, or, as he would have expressed it, "pounding his ear."

His call had only sounded twice. He awoke, hastily threw the blanket into the stationary cabinet, glanced first at the clock, then at a memorandum on his table.

Ford, although but nineteen years old, fully realized the importance of handling train orders. Being a light sleeper, he had never hesitated to take advantage of the dulness of the "wee sma' hours" to get some sleep. But, to prevent mistakes that might endanger innocent lives, he always kept an "OS"—a notation of reports of trains passing way stations on his division.

In his hasty glance at the clock and the scratch-pad, he rapidly calculated:

"No. 12 won't be here before 6.30. Cattle extra, 132 north, should be between Navasota and Millican. Excursion extra 212 should be just ready to leave Hempstead."

Operators have to think rapidly; so, with as little delay as possible, he answered:

"I, I, Br."

"31 Cy 3"—train order manifold form No. 31, make three copies—came in solid characters over the wire, and immediately began calling "M," then "D," both of whom answered on the first call.

"31 Cy 3. Order No. 20."

"Br. C & E. No. 12."

"M. C & E. Extra 132 north."

"D. C & E. Extra 212 north."

"No. 12 Eng. 129 and Extra 132 north will meet at College, No. 12 taking siding. Extra 212 north has right of track over all second and third class trains, but will not pass Wellborn before 7.10 A.M. nor Bryan before 7.45 A.M. J.J.D."

Ford, before giving O.K. and repeating orders, always set his signal. His signal-lamp, however, had become damaged so that even a light breeze extinguished it, and ordinary lanterns were being temporarily substituted. A white one stood on the signal-lamp platform, which extended from the telegraph-office on the second floor to within plain view of the track. When a train was to be stopped, this was taken in and replaced by a red one.

Ford now made this change, repeated the order, glanced out of the window to be sure the danger-signal was properly placed and burning, noted the reports of these trains on his list, and got out his blanket for another nap.

"It is now 4.45. No. 12 won't be here for an hour and a half at her best. I'll get enough sleep now and stay up after breakfast and ride my bike over to College and see the little stenographer," he mused half aloud.

Ford awakened with a sense of something wrong, and found it was broad daylight.

Going to the window, he was just in time to catch a glimpse of the conductor waving him a kindly greeting as the caboose whizzed by.

Horror-stricken for a moment, he muttered:

"What is the matter with old Collins on 129? Is he blind?"

More from force of habit than any hope of enlightenment, he turned to look at his signal-board.

"Great Scott! I went to sleep with that red lantern to stop 'em. Now in the daylight they can only see the board, and that's set clear!"

"No. 12 and that cattle will meet on that curve south of College, then that excursion will smash into that— What can I do to save those people?"

"Br, Br, Br, V," commenced the despatcher.

Ford paid no attention to the insistent calling of the wire, but thought rapidly.

"They can only run fifteen miles an hour through the city limits, and have two and a half miles to go before opening up! A horse to catch 'em at the crossing!"

A searching view of the streets from the front gallery revealed nothing but the usual 6 A.M. deathlike quietude of a country town. Not a sign of life of any kind.

"Br, Br, Br, V," now rang the train-wire with an unmistakable tone of impatience.

The operator at "D," a wire-testing office, thinking Ford's instrument on the train-wire out of adjustment, switched all four wires that ran into "Br" together, so now all four sounded "Br, Br, V," in unison.

Ford almost fell into a chair, and, his head pillowed on his arms, he seemed utterly paralyzed.

"The phone to College— No chance. I tried that last night on that death-message to the principal. Wire broken."

College Station, the ordered meeting-place, was a blind-siding, eight miles south of Bryan and three hundred yards from the A. and M. College of Texas.

"Br, Br, V," rattled the four sounders simultaneously, with a note of genuine alarm, as the despatcher knew No. 12 should have passed Ford's Station.

"I'd better answer him; maybe he's got more sense than I, and can keep 'em apart," said Ford. Opening his key, he poised his arm for flashing intelligence of the impending disastrous result of his carelessness.

"Br, Br, Co," came in weak and hesitating Morse from a table in the corner, the only instrument working since Ford had broken the current on the train-

wire. Until now its weak sound was unheard.

"The girl! She might stop 'em."

Without bothering to close the despatcher's circuit, Ford ran to the pony wire built from Bryan to the college dormitory by a former enterprising operator-stenographer employed by the college president, now only used by the operators in their leisure moments to talk to the new girl stenographer, who was doing her best to master the language of the "little brass noisy," as she called it.

"If I get her excited, she won't be able to read a word, and there is only about fourteen minutes left," said Ford again, as he slowly answered:

"I, I, Br. G. M., Miss Nellie. Are you up and dressed already?"

"Sure. Been out watching the surveyors laying drains," she started pleasantly.

Ford had been racking his mind for a plan whereby she could stop that train.

Her words gave him an inspiration.

"Say, Ne, copy this, and don't break me.

"Please rush down to the railroad. Pick up that red flag the surveyors use to lay the drains, that is standing near the gate, and wave it beside the track until you stop that south-bound freight. Tell them to get in that siding quick and let two trains pass north. Got past orders. Show them this message."

"O.K.," she started.

Ford now fairly snapped out the characters:

"For Heaven's sake, hurry."

She had about ten minutes in which to make it.

Turning to the train-wire, he answered:

"I, I, Br. V, U there?"

"I, I, V. Where you b—" the despatcher started angrily.

With forced deliberation, Ford broke in:

"Using lanterns, didn't turn board—12 couldn't see lantern in daylight. Got by at 6.50. Trying catch 'em College. Know in ten or fifteen minutes if need wrecker."

And he closed the wire.

The despatcher made a few dots in an excited, aimless way; then, evidently thinking, "There's no use bawling that dub out," also closed his key.

Ford spent the worst quarter of an hour

of his life—walking back and forth in the small telegraph-office, at every turn looking at the clock, whose hands seemed to have quit moving.

"Br," started the pony wire.

Ford was beside it before half the call had sounded.

"I, I, Br."

"South-bound train on the siding. Engineer and conductor both outside my door. Wouldn't let 'em come in. Their language is something awful."

Ford was so relieved at knowing of the safety of the trains that he laughed aloud at this naive description of old Collins's proverbial grouch, now accentuated by the insinuation that he had run over a signal.

"Fine, fine, little girl. Please stay by the wire and let me know when those two trains north pass."

He now called up the despatcher and reported the safety of the trains, adding:

"Here's the day-man; you and he can get 12 out of that blind-siding. I have gone to pack my grip."

When the girl told of the passing of the trains north, a message from the train-master, relayed from Bryan to the girl at College, notified No. 12 to proceed.

Ford returned to the office some two hours later, and, calling up the chief despatcher, asked:

"When will I be relieved?"

"You have already been relieved," was the reply.

"O.K. Will you pass me into Houston?"

"No. Walk."

"O.K. G. M. 73," replied Ford sarcastically, and, speaking to the day-man:

"Losing my job is such a small thing, compared to what so nearly happened," and he shivered at the thought of the awful scene his imagination so vividly depicted, "that it seems merely an incident in the day's work. Hereafter it's 'five on a line for me.'"

Ford went south from Bryan.

He did not walk—not exactly. He rode his bicycle for eight miles. Then it was abandoned, as it was not a tandem.

A DEAF TELEGRAPHER.

PETER A. FOLEY, the "lightning-taker" of Portland, Maine, is said to be the most wonderful telegrapher in the world. Foley is totally deaf, an affliction which ordinarily would be supposed to make telegraphy an utter impossibility, but since he became deaf Foley has developed what may be called a sixth sense, and by touch and sight he can detect the finest movements of the instrument and correctly interpret them.

His nervous system is a part and parcel of telegraphy, and by the sense of touch in his finger-tips he takes messages transmitted from the ends of the continent.

He can also read a message by watching the sounder. With his left forefinger placed lightly on the sounder he can, by his wonderful sense of touch, take a message as accurately as any man in the office. His feat is said to be the most wonderful thing any telegraph operator has ever accomplished.

Mr. Foley insists that he needs no more consideration than any operator, for he can read the fastest transmitting without the slightest difficulty, and his record of mistakes in a year is said to be smaller than that of any other operator in the office.

Mr. Foley's hearing began to fail rapidly

eight years ago. He was then considered the best operator in the Portland office and every effort was made to help him. The manager of the office arranged the receiver so it would make a louder tick, but in a short time he was unable to hear even this.

There appeared no alternative but failure. No operator in the world had been able to work after he had lost his hearing. The manager didn't wish to send a good man away, so he was set to doing common work at the same salary he had received as an operator.

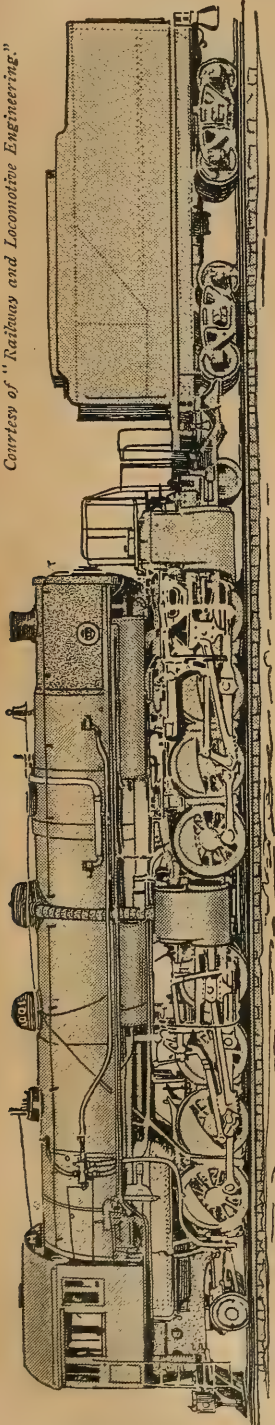
One day he announced that he would soon be able to go back to his old position. The manager was dumfounded. That a deaf man could be a telegraph operator was too much to credit. But Mr. Foley was able to prove that he could do it.

He was soon able to read a message merely by watching the sounder. This was not the full extent of his achievement.

By many days and nights of practise he developed such an accurate touch to his finger-tips that he was able to read and receive a message. In a short time his sense of touch and sight restored him to the profession which it had seemed inevitable that he must abandon.

This Engine Runs Backward.

Courtesy of "Railway and Locomotive Engineering."



Latest Type of Locomotive Built for the Southern Pacific Company, Which Are Run Cab First, So as to Give a Better View of the Track.



THE Baldwin Locomotive Works have completed twenty-one Consolidation Mallet type locomotives for the Associated Lines. These are part of an order for 105 engines, placed with these works by the Associated Lines in the spring of 1909.

The heavy Mallet engines have been assigned as follows: Three coal-burners for the Union Pacific Railroad, three for the Oregon Railroad and Navigation Company, and fifteen oil-burners for the Southern Pacific Company.

Apart from modifications necessary because of the change of fuel, the six coal-burners are practically duplicates of Southern Pacific locomotives Nos. 4000 and 4001, which were built by the Baldwin Locomotive Works early in 1909.

Experience gained in operating these engines through tunnels and snow-sheds, says *Railway and Locomotive Engineering*, has proved the desirability of placing the engine-crew where a better view of the track can be obtained.

Accordingly, the new Southern Pacific locomotives are designed to run with the fire-box end first, and the tender back of the smoke-box.

Oil Is Used as Fuel.

With a coal-burning locomotive such a plan would of course be impracticable, but no difficulty need be anticipated when using oil as fuel.

In the new design the cab is entered through side doorways, reached by suitable ladders. An unobstructed view of the track is obtained through the front windows.

The cab fittings are conveniently located within easy reach of the engineman, who occupies the right-hand side when looking ahead. The Ragonnet power-gear is employed, and its cylinder is located as on the previous locomotives. It has, therefore, been necessary to run a shaft across the boiler back-head, in order to make connection with the operating lever.

This arrangement, however, in no way interferes with the convenience of the cab fittings.

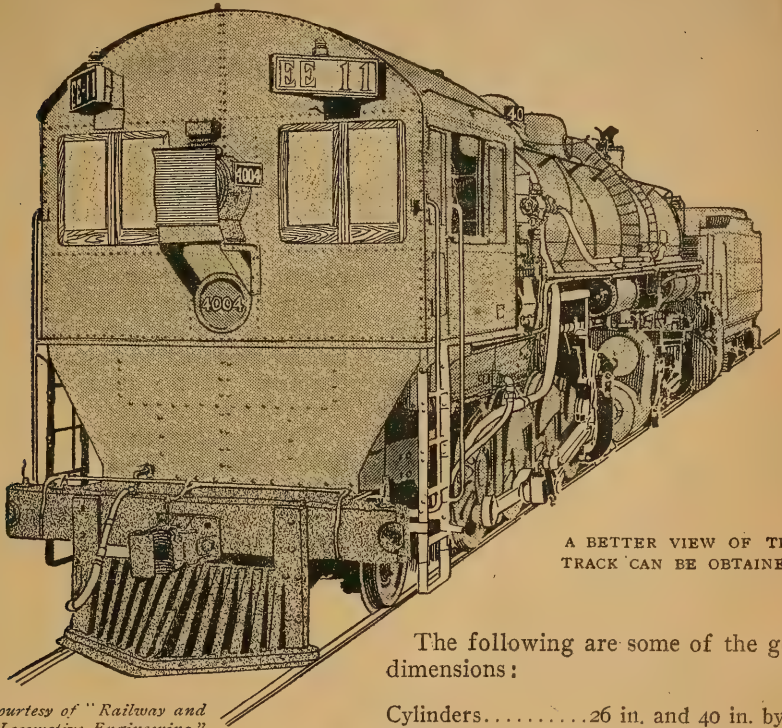
The main frames are securely braced, under the cab, by a steel casting to which the bumper is bolted. The latter supports a stub-pilot.

The bumper is placed well forward to protect the

occupants of the cab from buffing and collision shocks.

The deck-plate at the smoke-box end of the locomotive is of cast-steel, and is

the smoke-box, for reheating steam between high and low pressure cylinders, the superheating surface being 655 square feet.



A BETTER VIEW OF THE TRACK CAN BE OBTAINED.

Courtesy of "Railway and Locomotive Engineering."

provided with a chafing-block and a suitable pocket for the tender draw-bar. The tender is of the Associated Lines standard design with rectangular tank. This is the customary pattern for oil-burning locomotives.

A Number Being Built.

So far as the boiler, cylinders, machinery and running-gear of this locomotive are concerned, the design practically duplicates that of Southern Pacific engine No. 4000. The latter engine has now been in service a sufficient length of time to demonstrate its value; and the fact that twenty-one additional locomotives of the same type have been built for the Associated Lines proves that the performance of these great engines has been fully up to expectations.

These "cab-first" engines are equipped with the Baldwin superheater, located in

The following are some of the general dimensions:

Cylinders.....	26 in. and 40 in. by 30 in.
Valves.....	balanced piston.
Boiler.....	straight, steel, diam. 84 in.
Working pressure.....	200 lbs.
Firebox.....	steel, length 126 in.
Firebox.....	width 78¼ in.
Firebox.....	depth, front, 75½ in.
Firebox.....	depth, back, 70½ in.
Tubes.....	steel, number, 401.
Tubes.....	diameter, 2¼ in.
Tubes.....	length, 21 ft.
Heating surface—	

Firebox.....	232 sq. ft.
Tubes.....	4,941 sq. ft.
Feed-water heater tubes.....	1,220 sq. ft.
Total.....	6,393 sq. ft.
Grate area.....	84.4 sq. ft.
Driving-wheels.....	diameter, 57 in.
Driving-wheels.....	base, 39 ft. 4 in.
Total engine base.....	56 ft. 7 in.
Total engine and tender base.....	83 ft. 3 in.
Weight on drivers.....	394,700 lbs.
Weight on front truck.....	22,100 lbs.
Weight on back truck.....	20,200 lbs.
Weight, total engine.....	437,000 lbs.
Weight, engine and tender, about.....	610,000 lbs.
Tank capacity, for oil.....	3,150 gals.
Tank capacity, for water.....	9,000 gals.

PRESIDENT OF THE LINE.

BY JOHN WELLSLEY SANDERS.

A Young Man Rises in His Might and Defies a Modern Goliath.

CHAPTER I.

Meeting the Boss.



VINCENT WILSON was telling Harvey Jones what he had heard. Something like the sum of twenty million dollars were to be ex-

pendent for improvements.

"And," said Wilson, "they are to be paid for out of the earnings of the road, I understand."

"What of that?" said Jones.

"It's a bad idea."

"Do you dare to criticize the action of the board? As the president of the Mainland System, I countenance everything it does."

Jones, the big, burly man of finance, looked at the young mechanical superintendent as if he could have killed him for his impertinence.

But Vincent Wilson was ever ready with an answer. He had not spent ten years in the shops without learning something. Just entering his thirtieth year, he was one of that great and growing band of clever Americans—the younger element who see in the future bigger things to handle, both industrially and financially, than their fathers ever dreamed of.

Wilson had studied railroading in all its branches. From school he had gone to the Mainland System apprentice-shops, from which he had been graduated with all the honors that can come to a youngster in such a trying place.

He had worked his way up, in every sense of the word, through minor jobs

of grime and grease until he had reached finally the rung of mechanical superintendent. He had saved his money, and he had managed to buy twenty shares of the stock of the road when the panic drove it down to 16.

This gave him the privilege of a stockholder—the privilege of knowing something of the inside of the great system.

It also gave him ambition. The beacon of that ambition was that he would be president of the road some day. Maybe it was a foolish ambition.

But Vincent Wilson was a man who had the courage of his convictions—even when he lost.

He had the courage to speak to President Jones as he did.

Conditions had improved on the Mainland System. The panic had subsided. Business was coming back to its normal state. The stock of the road was going up. It was now near 50. Any young man who buys good railroad stock at 16, and soon finds it thirty-four points higher than the purchase price, and without any chance to diminish—certainly feels the blood of progress in his veins.

In view of the better times, the directors of the Mainland System had voted to spend twenty millions for improvements.

That is what Vincent Wilson and President Harvey Jones were debating about.

"Do you dare to criticize the action of the board?" President Jones asked again.

"It isn't a matter of criticism," said Wilson. "It's a matter of facts. Twenty millions is too much to spend on the work we have to do. I figure out that it is not necessary to spend five millions on

construction; and as for the new rolling-stock, I can cover that with much less. Sixty new passenger locomotives will not cost us more than twelve thousand dollars apiece."

"How do you know?"

"I've been getting figures."

"Then you mean to infer—"

"That there's a leak somewhere!" replied Wilson with unusual directness.

"A leak!" echoed the president.

"Some might call it graft," said Wilson, "but I prefer the more polite word—just now."

Harvey Jones looked steadily at the young mechanical superintendent. His jaws slowly set, and it was a moment before he said:

"You are making a charge against some one connected with this railroad."

"Have it that way, if you want to," replied Wilson. "I'm pretty well convinced that something is wrong somewhere, and when something is wrong, somebody is to blame."

"I will talk with you further about this," said the president. "I must go to luncheon at the Lawyers' Club. I'll be back at three o'clock. I'll see you in my office half an hour later."

"I shall be there—promptly," answered Wilson.

The two men parted. Wilson hurried over to the roundhouse to inspect a new Mallet Compound which the Mainland had purchased for work on its heavy grade in northern Tennessee. He had intended to take her out on the main line and give her a try that afternoon, but the appointment with the president at 3.30 o'clock prevented.

It would be a big feather in his cap if he could find the leak, and he was sure that one existed. It would, perhaps, become known all over the United States that Vincent Wilson had unearthed the fraud underlying a gigantic trunk line, and his stock would soar—soar so high that he would be recognized as one of the brightest young railroad men in the land; a new Harriman, with greater things to conquer.

That was what he wanted to happen.

As the thought struck him, new ambitions filled his being.

He was as one who has hunted long for gold and finally struck a lead.

And he was sure—so sure that, as he crossed the tracks to the roundhouse, he exclaimed aloud to himself:

"I am sure! I am sure!"

The headquarters of the Mainland System were in Louisville, Kentucky, and its lines ran down into the rich southland through the cotton belt of Texas and on to the West.

It covered a territory rich in promise—a territory blessed by nature.

It had employed many men in its various departments. One very unique character had been for years the head of its medical department. He was Dr. Ferguson.

For several years he had not been in the employ of the Mainland. He had been retired on a pension.

Vincent Wilson wanted to see him—he wanted to see him that day—particularly before the meeting with Jones.

He knew that Dr. Ferguson, or "Doc," as he was commonly called, knew about Meriel Planquette. He wanted to find Meriel Planquette.

"I'll make that crafty old medico tell me," he said to himself.

The doctor had a little office not far from the Mainland System's offices, and a scant practise. He was best known now to medical students, whom he coached for their "exams," when he wasn't at his other occupation—spinning yarns in his dusty, smoke-filled rooms.

Vincent knew no time but the present. When he acted, he acted quickly—but with decision.

He hastened to "Doc" Ferguson's rooms, and found him alone. He was a little gray-haired, gray-bearded man, with snappy green eyes. His tightly drawn skin over his bony face and hands bespoke his age. He seemed to be a nervous man—but calmness and coolness in all things held him in check, and gave him what he called "perpetual youth."

Vincent greeted the old man with customary formality, and, after sparring for an opening, he began to learn the whereabouts of Meriel Planquette, in a somewhat roundabout manner, for which he had a well-developed reason.

"I say, doc, what's become of old Kaintuck? He hasn't been around for ages," said Wilson.

At the question, the doctor grew sud-

denly grave, pulled at his pipe in a meditative fashion, and, so to speak, retreated behind his eye-glasses.

CHAPTER II.

Where Is the Girl?

"**B**OY," he said, "you will never see little Kaintuck again."

"Dead!" said Wilson.

The doctor shook his head slowly. "No, not dead," he answered, and again lapsed into silence.

"Tell me about it, doc," said the voice that had first spoken. "He was such a good sort, in his quiet way."

A picture sprang up before the eyes of Wilson of the vivid eyes and reserved manner of the young painter whom all had called "Kaintuck," because, in a vague way, it was known that he belonged in Kentucky. But this fact was about all that was known of him; for, while being neither ungracious nor unpopular, he preserved around him a certain delicate atmosphere of reserve into which one felt it a kind of violation to intrude.

No one knew how or where he lived. But that bare existence was a fight for him, it was easy to perceive, from his frequently worn and almost starved look.

Days and even weeks would go by without his even being seen or heard of; then, suddenly, he would blow in some evening, with his ivory face, the great black, unearthly eyes, and the straight elf-lock that would persist in falling over his forehead, however often he tossed it back with his frail, exquisite hand.

When he was in the mood, he could talk with a vividness that was almost painfully intense and imaginative; and at such times his great black eyes seemed like mirrors, in which you could see all he was seeing and telling. But his talk was always impersonal—it told you nothing of himself; and when the time came for breaking up, he would suddenly be gone, no one knew whither. It was some such figure as this that Wilson saw in his mind's eye as he said: "Tell us about it, doc."

The doctor took a long time to answer.

"Well, boy," he said, "I'll tell you—

but it is one of the saddest stories ever told in this sad world.

"It was about six months ago," the doctor began, "and I hadn't seen him for days, when suddenly, one night, when I was quite alone, working on some papers, in comes Kaintuck—but a Kaintuck so different from his usual self that I hardly knew him.

"We all remember how shy he used to be, how quiet—but this night he came in like a breeze, all lit up, and laughing, and even boisterous.

"My very papers rustled as if the window had suddenly been thrown open and the north wind had run its fingers through them. He seemed almost twice his usual size, and his eyes were like coals of joy. In fact, to tell the truth, I thought he was drunk—Kaintuck, drunk! Think of it."

The doctor took one or two draws at his pipe, and presently continued.

"'Kaintuck,' I said, 'you seem to be feeling good. What's the matter?'

"'Good!' he answered. 'I should think so, doc. I am so lonely, and I must tell somebody—so I thought of you. Doc, I've won the prize, and I'm going to marry the most beautiful girl in the world!'

"'The prize,' I said. 'What prize?'

"'I know I never told you fellows anything about myself—but all these months I've been working on a portrait of Meriel, for the competition at the Beaux Arts. The prize was quite a lot of money—and, doc, I've won it! Shake!'

"After I had congratulated him with all my heart, though I was still somewhat in the dark, I said:

"'But who is Meriel? You haven't told me that.'

"'Meriel,' he answered, 'is the girl I have loved since I was a boy; would you like to see her portrait?' and he drew a photograph of his own picture from his pocket. It was a lovely face. He gave me a copy of it. It stands yonder. And then he opened out, and told me all about himself and his early days.

"It seemed as though the flood of his complete joy had loosened his restraint, and he talked full and long as I had never heard him talk before. He told me of his home in Kentucky, of his mother, of his sister. He told me of the

privations he had gone through, of his tramping to the district school after doing the chores around the house.

"And then he spoke of Meriel—how he had loved her while she was still a little girl, and how even then they had vowed a childhood's love for each other. I tell you, boy, it is a wonderful thing to see a man so happy in the love of a true woman, kept pure by it, and sustained in his ideals, like poor Kaintuck.

"As he told me all about it from the fulness of his heart, it took me back ten years, and I tell you it did me a world of good."

The doctor took a rest for a while and smoked his pipe in silence, while Wilson handed the portrait of Meriel on to the other with murmured remarks on her beauty, touched with a certain wondering awe anticipatory of the coming sadness at which the doctor had hinted.

"Come on, doc," said Wilson, at length. "Brace up, and tell us the rest."

"Well," responded the doctor, taking the pipe out of his mouth and proceeding in his deliberate way. "He went on talking of his Meriel, and the future with her, in a way to break your heart. I have never seen, nor ever hope to see again, so happy a man in all this world. He almost made you afraid—he looked so happy.

"And I may say," the doctor added, after a brief consultation with his pipe, "speaking merely as a scientist, that there is nothing to me so marvelous as the spectacle of pure and absolute joy. It is the only miracle left us—for, indeed, there is nothing to account for it. We fellows of the laboratory, who know what a world we are in, cannot but stand in amazement before the confident happiness of two people in love.

"We are all in love, in our own particular ways, I grant, but there are not many of us in love like Kaintuck. I needn't tell you about it. You know the difference. Meriel was the only woman Kaintuck had ever loved—you don't need me to make the distinction."

Then, smiling, he made one of his boyish puns. "Have you ever thought that the more you love—the less you love?"

"Go on about Kaintuck," said Wilson.

"Well," continued the doctor, "I sat

and listened in envy—listened to every word of the transports of his new-found happiness. I felt I could have listened to him forever. His joy was like some magnetic natural phenomenon—a waterfall, a thunder-storm of joy, an apple-tree in blossom. It was so passionately elemental. I watched it almost as I would watch some picturesque experiment.

"Then, when he had almost worn himself out with his enthusiasm, I said: 'I know you don't often drink, Kaintuck, but this is an occasion on which you shall not refuse me. I have here an old-bottle of Madeira, which it would almost seem I have saved for this occasion. Let us drink it together to Meriel and your happiness.' The bottle opened, we drank the toast and, lighting cigars, continued to talk of the future."

The doctor made another pause, then proceeded in a still graver tone.

"The bottle and the evening were both nearly ended," he said, "when Kaintuck rose, and taking a cigarette, held it over the flame of my student-lamp, and, turning toward me, said that he must be going.

"'One more drink to Meriel—and the journey to Kentucky!' I exclaimed, raising my glass. He raised his glass too, all the time absent-mindedly holding his cigarette over the flame.

"'Mind your finger, Kaintuck,' I said as we drained our glasses; 'you'll burn it, man'—and, involuntarily, I jerked it out of the flame—for a terrible thought had occurred to me.

"'Are you a salamander?' I said, trying to laugh. 'Are you accustomed to hold your fingers in the flames like that?'

"'Like what? I never noticed,' he answered carelessly.

"'But surely you must have burned your finger,' I said: 'I saw it right in the flame.'

"'Not at all,' he said. 'What do you mean?'

"'Do you mean to say it didn't burn you?' I said.

"'Not in the least,' he answered. 'Here it is!'

"'Do you mind holding it in the flame again, Kaintuck?' I said with ghastly misgiving at my heart.

"Of course not," he answered. "But why should I?"

"Never mind—it is a whim of mine."

"And then he held his finger in the midflame till the flesh shrunk, but, apparently, the fire gave him no pain."

"What is the matter?" he said. "That's easy. I have often done that."

"Kaintuck," I said, "do you mind opening your shirt?—I want to look at your chest."

"Of course," he answered; "but what is the matter with you? Do you want to scare me? Tell me what's the matter."

"Meanwhile, he was undoing his shirt, and, holding it wide open, I looked in."

"There were two red spots upon his chest."

"I feared that I might faint, and had all I could do to steady myself."

"You seem to be troubled about those red spots," he said. "They are nothing. I have had them for quite a while."

"Then, noticing that I did not speak, and seemed perturbed, he, too, grew suddenly anxious."

"What do you mean?" he said; "the spots are nothing, or are they?"

"My nerves were so gone that I staggered away from him and sank into a chair; but he stood over me, insistent for an explanation."

"Tell me," he said, "what is it—for Heaven's sake, tell me."

"I cannot tell you, Kaintuck," I said. "I haven't the courage. Ask some one else. I dare not tell you."

"You shall," he said. "I am a man. You must be a man, too. As your friend, I beseech you to tell me."

"Do you really want to know, Kaintuck?" I said. "Are you really strong enough to hear?"

"Go on," he said, his face like a sheet of paper.

"Kaintuck," I answered, "God help you—but you are a—leper."

"Great Scott!" shouted Wilson.

"The way he took it," the doctor continued, "was the bravest thing I ever saw. He stood for a long time quite silent, leaning against the mantel. Then, presently, he said: 'I suppose it is incurable, doc?'"

"Quite, Kaintuck," I had to force myself to say.

"No hope?"

"No hope."

"And if I were to have children—and for a moment his voice wavered—it would descend to them?"

"Indeed it would."

"Then again he was silent, white and tense, straining every nerve to master his agony."

"Think of it, doc!" he said, after a moment.—"Think of it, doc!"

"And at this I confess that I broke down and cried like a baby. For when he said 'think of it,' it all swept over me—how he had come into the room buoyant and bright-eyed with the future. He had won the prize! He had won his love! I had never seen such a picture of pure happiness. And then to think how different the world was to be for him as he left the room. 'Think of it, doc!' I believe my breaking down helped him to pull himself together. Presently he laid his hand on my shoulder."

"Don't fear, doc," he said. "I'll play the man. But I must be by myself. I need a little time to think it over. But I'll see you once more before I do—whatever there is to do." And then in a flash he was gone, and Heaven only knows what the poor fellow went through as he walked back to his lonely lodging."

After another pause, the doctor resumed.

"A week after he came back to me, looking about ten years older, but curiously calm. 'Doc,' he said, 'I have fought it out. I have decided what to do. At first, of course, there seemed only one way. You know.'

"But the more I thought of it, the more it seemed the coward's way. Then there was Meriel, and the old folks!"

"Doc, do you know anything about love?" he said.

"Not much," I answered.

"Do you think girls get over things? I mean, suppose I go away, with no particular explanation. Don't you think that might be better than telling Meriel the truth? Her pride would help her, don't you think, if she only thought that I had deserted her; whereas, if she knew the truth, her pity might break her heart?"

"I believe you are right, Kaintuck," I said.

"‘I think so, too,’ he said; ‘but, oh, to have to let her think that of me! It is a million times more to me than those two red spots. Think of it, doc.’"

"After a while he continued: ‘I am glad you agree with me—for I have made up my mind. I shall give out that I have suddenly become religious, and that my particular form of religious mania is to go out to one of the leper settlements in the South Seas—do you see?—to help the poor devils.

"‘They will, no doubt, think me crazy—but, after all, doc,’ he said with a sad smile, ‘no one can deny that it is a noble motive, and perhaps, seriously speaking, I may be able to bring some comfort to the other poor devils like myself. My fingers can still hold the brush—and did you ever hear me play the banjo? That will be easy to believe. Kaintuck suddenly developed a loose screw in his head and went away to entertain the lepers in Molokai! Tell me—do you think that will go?’"

"‘I guess it is the only way,’ I said somewhat doubtfully.

"‘But, Meriel! Meriel!’ he cried, suddenly throwing his face upon his arms. ‘I trust this is the best to do—for Heaven knows I do it for her sake.’"

The doctor paused again to relight his pipe, and then concluded:

"‘Kaintuck is now in Molokai—he has been there six months. Here is a letter. I received from him only yesterday.’"

"And Meriel?" asked Vincent.

"Do you want to know very badly?" asked the old doctor.

"I do. I must know."

Ferguson hesitated suspiciously: Then

he said: "I really don't know. In fact, I'm positive I don't."

Quick as a flash, Vincent Wilson caught the double meaning of those words.

"You do know, Dr. Ferguson. I hear that she is a rich woman now, and lives in style. There's a reason for it."

"Is it worth money to you to know?"

"That is a matter for my mind alone. I cannot discuss it with you. But you know where Meriel Planquette is—and you are going to tell me."

"How do you know that I know?" asked the old man as he rolled a fresh pipeful between his hands and smiled cynically.

"Your demeanor proves it."

"Grant that—it is so. Is it worth something to you—the information?"

"You mean! You mean—that you—have—" Vincent Wilson was getting excited. He could hardly control his words.

"That I have a price," replied old Ferguson without turning a hair.

"You scoundrel!" shouted Wilson.

"S-s-h!" said the old doctor, raising his finger to his lips. "Don't get excited. We all have our price in these days. You will have yours sooner or later."

But for his age, Vincent Wilson would have floored the doctor.

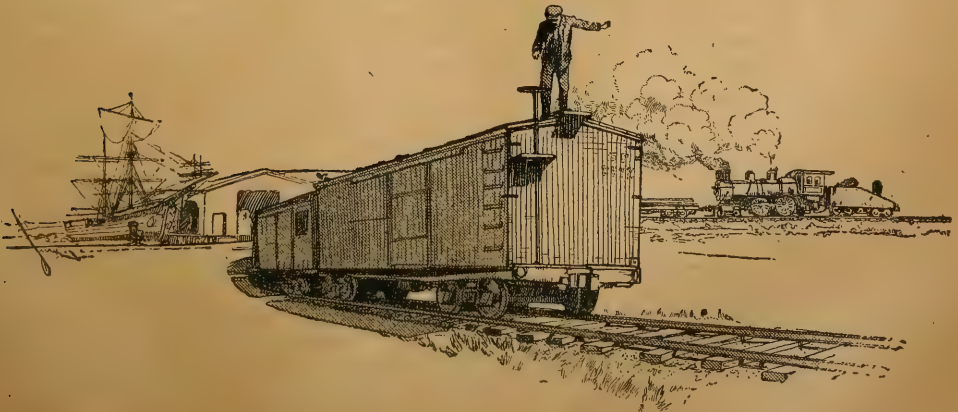
He calmed himself, and then asked:

"What is your price?"

"Five thousand dollars," answered Ferguson.

"Out of the question!" replied the younger man. "That is common extortion!"

(To be continued.)





THE MUSIC OF THE TRAIN.

BY EVA WILLIAMS BEST.

Written for "The Railroad Man's Magazine."

DO you know the song I'm singing, I, the train that bears
 you on
 Through the sunshine and the shadow, through the
 twilight and the dawn,
 Over prairie and divide,
 Chasms deep and rivers wide,
 To a distant destination, on and on and ever on?

You who love me hear my music, you who travel to and fro
 From the realms of fragrant blossoms to the kingdom of the snow;
 To your soul my own soul sings
 Of a thousand wondrous things
 In the ceaseless, rhythmic clinking of my pounding trucks below.

I am servant of the nation, mastered giant-slave of man,
 Bearing his stupendous burdens in a mighty caravan.
 For each swift, revolving wheel
 Turns upon the rail of steel
 In a prompt response, obedient to human will and plan.

I am bearer of grain garnered in a million golden fields;
 I am carrier of fruitage that a land of orchards yields;
 And where human hunger is—
 Where lack life's necessities—
 I supply the need, commanded by the power compassion gives.

From the mines in far-off mountains I convey the precious ore—
 Vast, inestimable treasures of our inland's richest store;
 And supplies to meet demand,
 Work of cunning craftsmen's hand,
 From the studio and workshop, labor's skill and scholar's lore.



And how often, oh, how often, through the long, eventful year
 I have sung my song of gladness—sung of happiness and cheer—
 To the hearts that beat in tune
 With my sounding, rhythmic rune
 As I bore the exile homeward after absence long and drear.

And the lover to his lady: Was there ever song so sweet,
 So melodious, so rapturous, so blissfully complete?
 Our two voices were as one
 As our ardent course we run!
 And I lost! What wheels were ever swift as Fancy's flying feet?

Wedded hearts I have transported to their new homes far away,
 Blushing brides and gallant bridegrooms on their happy marriage day;
 Full of hope that life, perchance,
 Would continue its romance—
 None so bright and brave and bonny, none so confident as they.

But at times I sing a measure, solemn, dirge-like, full of gloom,
 As I hear a lifeless body to a drear and distant tomb;
 And the mourners by the bier
 Only wailing minors hear,
 As the pulsing beat sings drearily of destiny and doom.

To the ailing and enfeebled who entrust themselves to me,
 Those who seek the softer, kinder skies that arch a Southern sea,
 I sing songs of Nature's wealth,
 Of her stores of life and health,
 Till hope enters each despairing heart and dread misgivings flee.

Letters, tons and tons, I carry—correspondence grave and gay—
 To the eager multitude that waits their coming day by day.
 All of life is written there:
 Sad regrets and fell despair,
 Tragic tidings, joyous greetings, hatred's haste, and love's delay.

Like a lapidary skilled in all the wisdom of his art,
 I string all the towns and cities, scattered far and wide apart,
 In a necklace rich and rare
 For Columbia to wear—
 Links of steel to bind her jewels, in every port and mart.

Do you hear the song I'm singing? Do you hear the loud refrain,
 Sympathetic, modulated to your pleasure or your pain?
 To your soul my own soul sings
 Of a thousand wondrous things
 In the ceaseless, rhythmic rolling of man's giant-slave, the train.

FORT, OF THE NEW YORK CENTRAL.



JERRIT FORT.

G. P. A., NEW YORK CENTRAL LINES.

Redrawn by H. M. Bunker, from a photo by Pirie MacDonald.

JERRIT FORT, the present general passenger-agent of the New York Central lines, has made this long, hard, and creditable journey. Mr. Fort was born in Cedar Rapids, Iowa, in 1865. He went to work, after leaving school, in the offices of the B. C. R. and N., and, to quote his own words:

"I soon cultivated the idea that my job was only intended to furnish me with spending-money, and I regarded my monthly salary somewhat as a rich man's son at college does his monthly allowance. Shortly after my twenty-first birthday I was rudely awakened by the application of the superintendent's shoe to my posterior; in other words, I was ignominiously fired."

Being a bright young man, Mr. Fort figured that this fact would be known all over town inside of twenty-four hours, and that he would be permanently disgraced; so he struck out for Chicago, and obtained a position in a railroad office there at fifty dollars a month. The people of his home town evidently had not much faith in him, for when-

Climbed from the Bottom to One of the Most Important Passenger Positions in America.

ever he visited home he would be greeted with such remarks as: "Well, I suppose you have come home to stay now." "Thought you'd be back before long." "Hard to make a living in a big town, eh?"

This, as New Yorkers would say, "got his goat," and he resolved to show these old Cedar Rapids folks that Cedar Rapids was not the only place where his brand of industry could be used.

Pretty soon he got a position in an auditor's office on the Wabash Railway. The lines east of the Mississippi River were at that time in the United States courts.

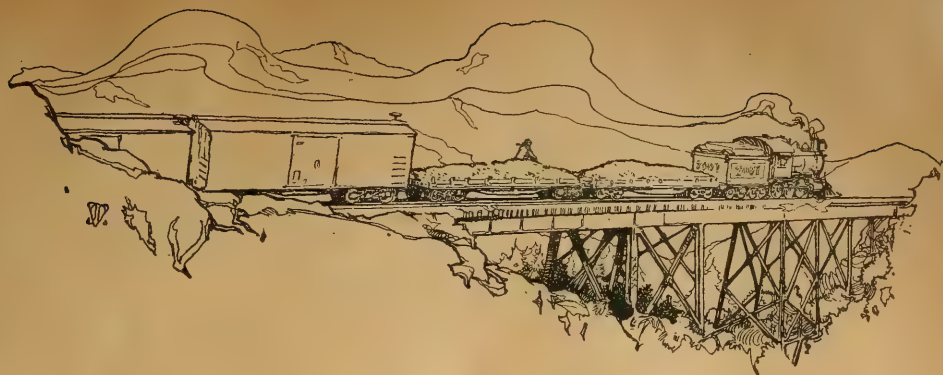
The Wabash Railway had an account with the Wabash Western, in which the Western owed the Wabash Railway a large sum of money. The Western was not particularly anxious to settle this account, and claimed that the Wabash Railway had not furnished the proper data from which to check the bills.

By this time young Fort had attracted considerable attention from the auditor, and the auditor sent him to St. Louis to ferret out the necessary information on which to collect the account. At that time freight was billed only to the coast bank of the Mississippi River, was rebilled from East St. Louis to St. Louis, and therefore lost its identity.

Young Fort's work was to reestablish the identity of this freight. He did it. This was the real foundation of his career. Before returning to Chicago he was promoted to the chief clerkship, and remained with the Wabash until the receivership was closed. He then came to New York and entered the employ of the New York Central in the office of the late George H. Daniells. He was there for eight years, and was then offered the secretaryship of the General Passenger Association. This position he held until 1900, when he was made assistant general passenger-agent of the Union Pacific at Omaha.

He held this position until in June, 1907, Vice-President Daly, of the New York Central, asked him to come back to that system.

It is said that men may be known by the enemies they make. Of Mr. Fort it must be said that he can be judged from the friends he has made—and kept.



Tragic Train Orders.

BY ARNO DOSCH.

THE block-signal and its attendant devices has removed, to a great extent, the nerve-racking responsibilities of operators. Nevertheless, there are still sections where the fact that trains do not come together, and that year in and year out no lives are lost there, is accounted for by the superhuman vigilance and efficiency of the unappreciated knights of the key.

But there are times when the most efficient of them will have a moment's aberration—in fact, it is usually to the most efficient that fortune is most unkind in their few mistakes—and the result is too terrible to contemplate. We read of men, women, and children mutilated or killed, lying forever beyond pain or torn in spasms of fearful agony; but do we think of the mutilated, agonized soul of the young fellow who has the tragedy of a score of deaths thrust instantly upon his immature shoulders, which are all unprepared to meet it? Surely he is the chief of the mourners.

One Small Figure Wrongly Transcribed May Hurl a Dozen Souls into the Unknown, or a Minute's Forgetfulness May Fill a Whole Town with Mourners.

CAN you stop 267?" The wire seemed to await the answer, while the night operator at Canaan leaned forward and saw the caboose-lights on the fast freight disappear around a curve.

"Gone. Anything wrong?"

The strained faces in the despatcher's office at Concord grew old and haggard as they listened. James Bromley, their chief, opened his mouth to speak, but his voice caught. In the hundredth of a sec-

ond a terrible picture had been flashed on the camera of his mind.

The whole of his division, every switch, every curve, the cuts, the bridges, the grades, spread out before him in a panorama, and in the center of it he saw the Quebec express, loaded down with happy excursionists, rushing into collision with the fast freight just north of Canaan. The freight, making for a siding, was tearing a hole in the night with a string of heavy cars, and when the two trains met it would mount the passenger and smash through car after car.

He turned painfully to the clock and realized the collision was due.

"Anything wrong?" repeated the night operator at Canaan.

Bromley spoke in a dull voice.

"Order out wrecking-crew, doctors, and nurses, ready to start at a moment's notice."

An Unanswered Query.

"Anything wrong?" came the question again over the passionless wire.

Then the operator at Canaan remembered something, and he reached up to a hook as one prepared to take death by the hand. Scribbled in his own writing was a message which had formed part of a train-order he had given to the conductor of the fast freight 267: "No. 30 an hour and ten minutes late."

Number 30! He had read it No. 30, and rewritten it 34. What lapse in his mind had caused him to see a four where he had written a cipher he could not explain. No. 34 was the Quebec express, due at his station in seven minutes, but it would never arrive. The fast freight would see to that in—he glanced at the clock—half a minute.

He seized his head in his hands and crouched down over the desk, shutting out the clock and the deadly silence of the night; but there crashed through his head the certain impact of the two trains, the buckling of the coaches, the smothered cries as the heavy freight-cars were hurled through the broken seats. People he knew were on that train. Already their bodies must be jammed and lifeless.

Awaiting the Death Crash.

He looked up at the clock again, and it seemed to have stopped; but he listened, and could hear the tick. The trains were even then meeting, and he could only wait.

If only it had not been he! There was absolutely no one else to blame. He had made the mistake, and he had ordered 267 to go ahead. The error had been discovered when a comparison of train-orders in the Concord office showed that they had lapped, and then—too late—the question had come over the wire: "Can you stop 267?"

Concord knew it was too late when the message was sent, but it was the one chance.

In anything else a little error such as the substitution of a four for a cipher could be corrected, but a train-order, once gone, is beyond recall. The Canaan operator had made the first mistake in his career, but it had snuffed out he knew not how many lives.

And it was well he did not know. By the time the truth came over the wire he had a fresh grip on his reason, and held to it while the list of dead mounted to twenty-five, then to forty-three, and the seriously injured reached, first, forty, then more than fifty.

While they waited in Concord, stunned, it flashed on Bromley—the Montreal Express. It had no knowledge of the disaster, and was burning the rails southward. Frantically one of the men threw open the key and called station after station, but from each came back the answer: "Gone." And in each sat an operator, realizing that there was an impending catastrophe, but knowing only vaguely where or how.

Steel Cut Like Cardboard.

The operator at Canaan heard the calls and the answers, and he knew what it meant. Added to the collision with the freight, which must have already strewn the track with the dead, was to come the rear-end collision with the Montreal express, killing those who had escaped the freight.

When the crash came between the Quebec express and the freight, the engine-crews had just enough time to throw on the brakes and jump. As they leaped, the huge locomotives broke each other like cardboard boxes, leaving the track clear for the solid freight-cars to hurtle through the coaches. The smoker was completely demolished; and in the second car, where all faces were turned toward a man who was singing, the seats were ripped out from end to end, leaving a trail of dead and unconscious excursionists.

The buckling of the third and fourth cars threw Frank Ryan, a brakeman, as from a springboard, and he fell, bruised and stunned, beside the track. In the



"MONTREAL EXPRESS—RIGHT BEHIND—FAST TRAIN—
NO SIGNALMAN!"

dark, some one stumbled against him, bringing him back to consciousness, and he seized the leg as it passed over him. But he could only lift one arm, and all the lower part of his body was useless. As he fell back, a head bent over him, and he gasped faintly:

"Montreal express—right behind—fast train—no signalman! For Heaven's sake, stop it!"

He fell back unconscious again, while the passenger whom he had seized in the dark ran up the track, not knowing how he was to stop the train, intent only on going as far as possible. While he ran the dawn broke, and the engineer of the Montreal express, peering ahead, saw the stumbling, reeling figure down a piece of straight track, and heeded the wildly waving arms.

The Anguish of Suspense.

When this, the Canaan, New Hampshire, wreck of September 15, 1907, happened, every operator on the division was suffering agonies of apprehension before

the crash came. The fact that it had not yet occurred, but was inevitable, only made the pain more keen.

No wonder their faces habitually wear a serious, concentrated look. Vigilance and wakefulness are the watchwords of the profession; and yet most operators are at small stations, where, particularly at night, they have little to do. When all the world is asleep they must remain alert through the length and breadth of the land, keeping trains out of trouble and preventing delay.

As a train rushes past a forlorn little house by the side of the track, all the passenger thinks is that he is glad he does not live there. But it is to the faithful performance of duty on the part of men who are willing to live in such places that he is able to pass over two or three States while he sleeps.

During the night his safety has been in the keeping of dozens of these men, but he wakes in the morning without appreciating the fact that if a single one of them had failed in his responsibility, his journey would have ended in tragedy.

One of the most efficient trainmasters on a splendid system of railroads explained how he was given a sense of his responsibility. At seventeen he was night operator at a small station in Ohio, and everything had always gone well. His job seemed more monotonous than anything else, and it never occurred to him that the passengers in all the trains which passed by his office were placing an unexpressed faith in him, and expected him to watch while they slept.

Late each night two trains passed down, the second meeting an up train at the station below. One night in hot summer, when he had not been able to sleep well for a week, he received an order to hold the second train at his station. He stepped out to set the signal just as the first train was passing, and leaned his head against the door to enjoy the cool breeze it created.

The Knife of Responsibility.

The train pounded along, then there was quiet, and again it began to pound along. When it became quiet a second time, he awoke—too late. While he had been asleep standing up, the second train had passed, and somewhere between his station and the next there would be a collision. He jumped to the key and rapped excitedly:

"Hold No. 12."

"Gone," replied the operator below.

The two trains were headed toward each other, each making time for the connection at the next station. The boy pictured the wreck as vividly as the operator at Canaan, and he wanted to run and hide. But he only got as far as the station platform, where he stopped and strained his ear against the silence of the night, as if to hear the impact, miles away.

He waited fifteen of the longest minutes that ever dragged their weary seconds, and then he saw a light coming down the track. At first he thought it was a survivor hobbling in with a lantern; but it was steady, and advanced rapidly. It was the down train coming back. The engineers had each seen the other train, and come to a stop.

"That's my nightmare," the trainmaster said. "It was thirty years ago;

but whenever I am tired, those trains rush at each other all night through my sleep."

Blameless Man Who Fled.

He did not run, but it took nerve to stay and face the expected horror. More than one operator has found it too much for him. John Lynes, a boy working as night operator at Volland, Kansas, on the Rock Island, was one of them.

The wreck was no fault of his; but the horror of it alone was enough to drive him out in the country as far from the railroad as he could get in a night of running, hoping that the sight of mangled bodies would cease dancing before his eyes, and the shrieks of the injured would die out of his ears.

The horror pursued him. He could not run far enough to escape. He did not know it, but he was fleeing from the terrified cries of men pinned into their seats and burned there.

This tragic order was properly received and executed, but the engineer disregarded a part of it for a reason he never had a chance to explain, as he died first. A south-bound passenger, which ordinarily waited at Alta Vista, the station beyond, for the passing of two trains, was ordered to wait at Volland on this night of June 7, 1907.

Lynes received the order, stopped the train, and gave the order to the engineer. After he had returned to his office, one north-bound train passed, and immediately after it he heard another. Surprised that the second train was so close, he glanced up and saw that it was going the other way. The south-bound had waited for only one train.

At one leap he was on the platform with his lantern, but, although he swung it as hard as he could, the train went on. So he swung it again even more violently, and then he saw that the light was out.

Lynes's Desperate Efforts.

Twenty yards down the track the pumper was walking away, his lantern on his arm. Lynes made a dash for him, racing beside the speeding passenger, which was already going too fast for him to climb aboard. The last car was

whirling past when he caught the pumper and wildly waved his lantern, but no one saw. As a last chance, he hurled the lantern itself at the rear door of the train, but it broke on the coupling.

He knew what would happen. Half-

sengers in one car as they lay helpless but conscious, jammed between the seats.

Pursued by a Horror.

Lynes was fortunate in being found. Otherwise he might have lived the life



way to Alta Vista there was a long, deep cut on a curve where the trains were certain to meet. In it the engines would pile up and be thrown back on the crumpled cars. As the tragedy was borne in on him, he fled, running, stumbling, over fences, through brush, across fields, in a mad rush to get as far away as possible.

The next morning he was found miles away, and was told how the gas-tanks caught fire and burned thirty-four pas-

of terror through which Will Thurston went after he had caused a fatal wreck on the Fitchburg.

Thurston was night operator at Ayer Junction, and was a very careful man. An amputated leg and several fingers missing after freight-wrecks when he was a brakeman had made him so. He knew what it meant for a train-order to go astray.

One night in 1889, when there had



CLINTON PETTER

been a tie-up; he was ordered to stop a freight to make close connections with a belated passenger; but, other messages following, he did not have time to set the signal immediately. In those days a lantern alongside the track served the purpose of a semaphore at danger; and when there was a train to stop, Thurston had to pick up the lantern and carry it out.

On this night, a few minutes after he received the order and had straightened out a number of tangled matters, he heard the freight coming, and, unconsciously, was listening to hear it stop. Instead, it pounded right along through. Rushing out to see if the lantern was still lighted, he was surprised not to find it at all.

The train had passed; the wreck was certain, unless he could stop the passenger. Running back to his office to call up the next station, he seized the key, only to find his worst fear realized.

Nerveless and stunned, he turned

IT WAS ALL
OVER, THEN!

around, and there stood the lantern in the corner. He had not put it out on the track.

After the crash, when they were opening the track for the relief-train, Ayer Junction failed to reply to all messages. Bill had gone.

The Ready Gun.

Years afterward, Leonard Johnson, of West Pollock, New Hampshire—who, in Bill's day, had been sheriff, but was, at this time, on a pleasure trip to Texas—recognized a familiar back on the streets of El Paso.

Walking up behind, he tapped the man on the shoulder, only to see him jump with marvelous agility for a one-legged

man, landing in the middle of the street, gun in hand. Johnson stopped, surprised, and looked on the worn, frightened face of Bill Thurston.

"What's the matter, Bill?" he asked.

"Don't make a move," replied Bill. "You'll have to catch me before you can take me back!"

When Johnson explained that he was not wanted for any crime, that the wreck itself had been almost forgotten, Bill drew an easy breath for the first time in years. He told Johnson that he had been living in dread of arrest ever since that night. A footstep in the hall would waken him in a chill, and any one brushing by his shoulder on the street turned him cold.

Many an operator who would have liked to run away and forget everything has stayed by his post and ended with nervous prostration. One of the living tragedies which remains after a wreck has been cleared away, and the victim, either dead or recovered, is the despatcher who has been so badly shaken by the horror of it that he has never had the courage to send out another train.

It may not have been his fault, but the fact alone that he issued the order which ended so disastrously is enough to take away his nerve. To many despatchers a big wreck means the end of their railroad careers. All the notable wrecks have victims of this kind. One which has left the staff of operators intact is a subject for comment.

Disaster Beyond Conception.

The most remarkable case of this kind occurred in the Middle West, following what was probably one of the worst head-on collisions that ever happened. It was a dozen years ago, but it is fresh and green in the memories of the men who lived through it. Their names, or even the road and the State, would recall it all too vividly to those who would like to forget, and even the number of the dead, if printed, would point too definitely to the occurrence.

There was a west-bound passenger-train which was ordinarily on time, but, on this tragic night had been increased by eight cars to carry a party of excursionists. Consequently it was late, al-

though it had an extra engine; and the despatcher, anxious to put through an east-bound on time, gave orders for it to wait at a station just east of the division-point.

In giving the order, he did not take into consideration the fact that the west-bound had had the right of track for a good many years, and was not accustomed to be stopped except at important points, and sent the east-bound out before he had heard from the west-bound.

Clearing the Operator.

The operator at the point of delivery was a new man, who had just been stationed there that day, but he carried out his instructions to the letter. That the signal was properly displayed there was no doubt, as the section crew, returning from work, took a little more time than they otherwise would have getting off the track, seeing that the train had to stop. The comments among the gang regarding the signal stood the operator in good stead later, when the dead were being counted by the score.

Why the train passed, there is no telling. There were several theories at the time, the most persistent of them being that each of the engineers was busy, and each was relying on the other to keep a lookout; but neither of them had a chance to explain afterward.

When the double-header rushed by the station the new operator realized the danger on the instant, and was able to get to the door of the tower before the second engine passed. It was just at dusk when his lantern barely showed, and he saw immediately he was not noticed. Without a moment's hesitation he threw the lantern at the stooping figure of the fireman, but it went directly over his back, out the other side, and crashed on the ground. It was all over, then!

The Torment of Purgatory.

The operator stepped inside his tower again to watch it go. He knew how long the east-bound had left, and strained his ears to hear the impact. But first he went to the wire and told the despatcher what had happened.

"As I am sending this," he rapped,

"I expect any second to hear—" The sudden break was eloquent of what he had heard.

Those who were in the office of the dispatcher saw him spring to his feet and stand like a frightened animal, nostrils dilated, head high and attentive. He was listening, too. All stopped work and watched him.

Far across the prairie—almost five miles it was—they faintly heard a detonation. It might almost have been a box falling in a distant room, but they knew better. To the dispatcher, there was no doubt whatever.

Such a wreck as he was sure had happened was enough to wake the countryside. The only reason why the operator at the point of delivery heard it first was because he was nearer. Sound travels fast, but to the mind of the dispatcher it came on leaden wings.

In the moment that the crash was resounding in his ears, he realized where the trains must have met. Both were on the down grade, going not less than forty-five miles an hour.

The double-header had comparatively light engines, while the east-bound was being hauled by one of the biggest passenger-engines on the road. He could imagine the heavy engine knocking off the lighter ones and attacking the passenger-coaches one after another. How many it would smash through it was spared him to know—then.

The sound died away, and the operators in the office continued to stare at him as the only point of inquiry. To him their look was accusing. His eyes suddenly flashed with a mad light; his two fists came down with startling violence; then, all at once, he wilted. As they continued to stare, he looked around with unseeing eyes and walked out of the office.

The Thirst for Vengeance.

They looked at each other as much as to say, "We'll never see him alive again." All the time they did not understand what the trouble was, as he had taken the message himself, but they could see calamity spelled in mighty big letters on his face.

They wanted to rush out to save him,

but immediately there were other things to do. It was not half a minute before they knew what had happened, and, with a wreck on their hands almost unprecedented in the history of railroading, they had time only to think of the work in hand.

The whole town went into mourning. There was not a soul in it who had not lost a relative or friend. Feeling ran high, and there was a strong disposition to place the blame on some one and make him suffer for it.

The operator at the point of delivery made his statement, and was corroborated by the section-hands, but this rested the burden on the two engineers of the double-header, and they were both dead. Men gathered around street-corners and talked it over excitedly, and gradually a slow anger arose against the dispatcher for issuing the order at all.

Even the railroad officials criticized him, although he had only done his duty in attempting to get the west-bound away on time. He was the only living person on whom the mob could wreak vengeance, and it was loudly proclaimed that it would not be healthy for him to show his face in that town again.

What a Man Did.

While the excitement was at its highest he came back, went to his office, and took up his duties as if nothing had happened. The coolness of the action, and the look of terrible suffering on his face, disarmed all criticism, and there was not a hand raised against him. He is still dispatcher at the same division-point, and gradually the resentment against him has died out, leaving in its place a respect for his courage.

Suffering on account of a lapped train-order for which he was not directly responsible has fallen to the lot of many a railroad man. The case of Charley Parker, one of the best-known conductors on the New York Central, has attracted more than the usual amount of attention, as he has lived it down. According to the rules, he was responsible for a wreck equally with Billy Murray, the engineer, but he only did what many a conductor has done, relied on the engineer to follow out train-orders.

They were running the fast sleeper to Montreal over the Delaware and Hudson, along the picturesque route by the shores of Lake Champlain, when they were ordered, one night, to wait at Willsborough for a fast freight. The order

man, he was given a passenger-train again. He keeps his eye on all train-orders now.

The same train which was wrecked on this occasion carried signals, one night, for a light engine which went to a tragic



ALL STOPPED WORK AND
WATCHED HIM.

was delivered several stations down the line, and Parker, giving it to Murray as usual, thought nothing more about it.

Two Men Who Forgot.

Unfortunately, Murray forgot, and went through Willsborough without stopping. Parker, busy collecting tickets, did not notice, and the first he knew of the lapped order was when the trains met.

Parker was held responsible, and dismissed from the service, but several years later he was taken back as brakeman, and after serving eight years in that capacity, and several more as a baggage-

end. A freight was waiting on a siding; but neither Tom Durmody, its engineer, nor "Chalk" Barker, the conductor, saw the green light, or heeded the customary whistle. As soon as the passenger passed, they pulled out upon the main track and began to make time around the many curves with a string of forty-five cars behind. The light engine was on the passenger's schedule.

The operator saw the freight pull out, but knew nothing about the light engine until he saw it rounding a point three miles distant. At the same time the freight was rounding the point from the other direction, and neither could see the

other, although both lay in plain view of the operator helplessly watching them. Fascinated by the imminent catastrophe, he stood holding to a lever in his tower, hoping that they might stop in time.

Even before they crashed a sick feeling swept over him, and he was afraid he would faint. So he hurried to the wire and sent out word of the wreck before it happened. As he finished he looked up and saw the light engine's headlight flash high in the air as both engines plunged down the mountainside. When the wrecking-train, which he had ordered, came, they found him unconscious on the floor of the tower.

To deliver an order and, after it has run its tragic course, to sit as judge and fix the responsibility, rested as a duty on a despatcher who now handles two hundred trains a night. He was day operator and station-agent at a little town in the coal regions of Ohio, on a portion of the Ohio Central.

Mining had ruined the water in the neighborhood for engine use, and three or four strings of cars were kept busy supplying water for the whole district from a stream above Readeville. The town was on the grade, and the water-trains used to tear through it, the water chugging about the tanks and sending the train ahead faster and faster.

It was before the general use of air-brakes, and the operator kept as close watch on the uncontrollable trains as if they were mad bulls. One day a freight was due at about the same time as a water-train, so he sent word up the line for the freight-conductor to keep watch, and, if the water-train was behind, to have his rear well guarded.

The freight drew in, and the conductor informed the operator that he had dropped a flagman a mile up the track, who was to walk half-way and be picked up by the water-train. It sounded safe, but they did not know that the flagman had decided on his own hook to ride on the rear platform of the caboose until it reached Readeville and then walk back a hundred yards up the track.

Almost immediately they heard the water-train whistling for a crossing just above, then they saw the headlight; but, as it was turned directly on them, they could not tell how fast it was approaching. They thought it was stopping, but it was, in fact, bearing down forty miles an hour.

The flagman's hundred yards was past in a jiffy, and the caboose was struck at full speed, splitting it directly in two. At each particularly stubborn obstruction in a freight-car the tanks surged forward and pushed the engine through two or three more cars until the freight was eaten to pieces.

The flagman saw there was no use for him to remain around that railroad longer, so he walked into the split caboose, picked up his clothes, and was just leaving when the operator collared him.

"Before you go," the operator said, "you are summoned to appear before my court and give your testimony. It lies between you, me, and the con, and you've got to exonerate us. It's bad enough to kill an engine-crew, but you're not going to cost one of us his job."

What remained of the two train-crews formed a jury, found the flagman guilty, and the operator passed sentence ordering him to fade away."

HIRED BY VAN HORNE.

What a Little Inside Knowledge Did When an Expert Track-BUILDER Received an Offer from the Railroad Magnate.

"A MAN frequently betrays a good deal of his character by his unconscious personal peculiarities," said Sir William G. Van Horne recently to a group of his friends at dinner. "I found out to my

cost, some years ago, that it is expensive to have any individual eccentricities that might be noted by casual observers, and taken advantage of by them if they knew their meaning."

Sir William is the overlord of many thousands of miles of railway. Some of them are in the Far North—like the great Canadian Pacific system, which he built, and others in the lands of perpetual summer—like the roads that gridiron the island of Cuba. In between are many other leagues of track over which he may have his private car or special train hauled free by simply signifying his wishes to the operating department.

In his travels Sir William is always on the lookout for good men—competent and reliable subordinates—the men who can do things—and he personally engages a great many. In nothing do his personal peculiarities stand out in greater relief than when he is negotiating with these. That is the feature of the story that he went on to tell about himself.

"Some years ago," said Sir William, "I bought a line of railroad in Michigan, and as soon as possible went down from Canada to make a tour of inspection of the property. As I was riding along I saw some pretty fair construction work on a railroad that paralleled my line here and there—a competing road that had just been finished.

The Ubiquitous Smith.

"Who built that road-bed over there?" I asked some of the local gentlemen who were accompanying me.

"Why, that is some of Smith's work," they replied.

"Forty or fifty miles farther along I noticed as pretty a piece of bridge building as I ever saw—just about perfect. I asked who did it, and got the same reply, 'Smith.' After another stretch we ran alongside the competing line again, and a long fill with a big culvert in the middle caught my eye.

"It was beautifully shaped up and down in a first-class, workmanlike manner, that I could not but admire. Again I inquired who did it. 'Smith,' was the answer. And so it went.

"Whenever I would notice anything particularly good it would always be Smith that had done it. Smith, I learned, was the chief engineer of construction on that property, and was a man who worked tirelessly and well.

"I made up my mind that we needed Smith on some new work that we were going to do—work that required the highest degree of skill. So when I got back to my office I wrote Mr. Smith asking him to come and see me at his earliest convenience on a matter of importance.

"Now, Smith was a wise young man—so I learned afterward. It seems that he had

an intimate friend in Toronto, and this friend also knew me pretty well—in fact he knew some things about me, as it turned out afterward, that I didn't know myself. So when Smith got my letter he came on to Toronto, and before seeing me went to call on his friend and showed him my letter.

"What does Sir William want to see me for?" he asked his friend.

"To offer you a job. What else did you suppose?" his friend replied.

"How much do you think I ought to strike him for?"

"What have you been getting?"

"Six thousand."

"What would you go to work for him for?"

"I think I ought to get about nine thousand."

Pointers on Sir William.

"Now, I'll tell you what to do," said Smith's friend confidentially. "You go over and see Sir William and draw him out. Talk along with him, and watch him very closely. Don't let a single one of his moves escape you. He has some very marked peculiarities when he is hiring a man like you, and if you observe closely you may be able to gage just how much he will stand.

"After you have been talking a while, if Sir William gets up from his desk and walks around and sits half-astiride the first chair he comes to, keep away from the question of money until you see what he is going to do next. If he gets up and goes back to his desk and settles down there, nine thousand is the top price he will pay.

"If he gets up in a minute or two and commences walking up and down the floor, make it twelve thousand, and you'll get it. Don't be too hasty about naming your price, even while he is pacing the floor, though, for there is still another thing that he is likely to do if you get him up to the top notch of enthusiasm.

"If he stops and perches on the big table with one leg tucked under him, you may know that you've got him up to the limit he can afford, and you can make your salary fifteen thousand, and he will agree to it."

Sir William paused here and took a sip of water. No one spoke for a moment. Then one of his guests, who could restrain his curiosity no longer, inquired:

"And how much did you hire him for, Sir William?"

Sir William Van Horne sighed, then smiled.

"Fifteen thousand," he replied.

THE TRAGEDY OF THE TOWER.

BY JAMES WILLIAM JACKSON.

The Troubles Howard Got Into Through a Mania for Holding Up His Superiors, and How He Was Cured.



HE half-mile of railroad track straight away to the left glistened in a scorching August sun. Waves of heat sucked in filmy curls out of the steel bands before the parallel rails disappeared around the sharp curve.

A way-freight crawled slowly and reluctantly up through the blinding glare to the sweltering little country station near the signal-tower. Some sleepy empties were to be drilled from the siding and replaced by loaded cars.

Howard, the boyishly slight young operator, yawned wearily as he glanced out of the window and observed the engineer of the freight hanging from his cab and puffing languidly at a corn-cob pipe while he waited for orders.

It was not a bracing outlook. Howard listlessly curled his arm on the table and laid his head down heavily. He remained so when Joe Smaltz, the freight conductor, came puffing hard up the steep stairs of the tower and waddled his pudgy, two-by-four body across the room.

"Mistake this for a hall-bedroom of a summer hotel, Howard?" Joe quizzed, in a genial voice. "Or did you just quit your job and forget to notify us before you went to sleep?"

Howard lifted his head without the trace of an answering smile.

"Tuckered out, and disgusted, Joe," he explained. "Been up I don't know how many nights."

Joe wiped off his tobacco plug carefully with the cleanest part of his jumper sleeve, took a generous bite, and patted down the gashed end of the plug before he restored it to his back pocket.

"How's your boy, Tom?" he demanded then sympathetically.

Howard put his elbow on the table and twisted his dark-skinned, attractive face out of shape as he leaned his full weight on the upreaching hand. His eyes looked unseeingly out of the window and he moved his head in a slight shake.

"The doctor doesn't promise anything," he said in a despondently low tone. "I—I was up with the kiddie all last night and the night before. His mother is down sick now. No luck at all, Joe—and no money. What's worse, I won't have any job by to-morrow."

He suddenly flopped his head back into his curved arm, burying his face from the sight of the kindly conductor. Joe drew close.

"Prayin', boy?" he inquired fearfully, as he put a grimy hand gently on the brown head of the young fellow. "Oh!" he observed, in a tone of relief; "it sounds a little like cussin'. That shows there's some spunk left, but it won't do no good. See here, now, we'll all stand by you after your job's gone. Don't lose your nerve."

Joe had been turning over his quid with nervous concern. Now he spat through the open window, a distance of a track and a half. "Pete wants to get over on the down track," he reminded, changing the subject suddenly.

Howard rose obediently and with a deep-drawn sigh, to throw open the proper switch. Joe gave him another fatherly, comforting pat, and left him. He turned his attention then to the levers, while the clanking, puffing engine and the rattling freight-cars drilled back and forth. But in the momentary intervals between throw-

ing the rails he leaned his elbow against the window-frame and stared at the floor.

Home matters would have alone justified his despondency. But there was the further fact that he was momentarily expecting an order of discharge and a successor in the tower-house.

It had all come about through a blunder in carrying out instructions. The strain of his boy's sickness and late hours had made Howard stupid—a little careless, no doubt, and unfit for continuous accuracy.

Nothing had happened to life or property because of his blunder. His own instant correction of the fault had prevented that. But the finest express on the line had been held up.

Unfortunately, the president was aboard, with some Western railroad potentates as his guests. The visitors had marveled for a while at the skilful handling of the road, and afterward had twitted the chief because the flier had been stalled by a cow of a freight which had no business to be where it was.

Ordinarily, the error would have meant thirty days' suspension, but the president had been warmly disturbed by the irritating defecation on the prize division. Howard had already learned in a roundabout way that his discharge was seriously contemplated. It might come any minute. Every click of the keys startled him into expectation, and every stranger was mistaken for the new operator.

The superintendent of the division had come up on the freight. Finishing an errand in the station, he came into the tower and busied himself writing while the drilling went on.

Howard, attentive to the demands of the freight, was pulling and pushing the levers to manipulate the cars hither and thither. The train was late, the superintendent eager to get up the line; and the men, conscious of his presence, hustled almost recklessly to finish and be gone.

"They'll trip a car off the track first thing they know, though," Howard muttered, "the way they're smashing things back and forth."



THE CREW HAD SENT THE CONSIGNMENT ALONG THE DOWN-GRADE SIDING.

The siding ran down from the village crossing, and ended only where the tower squarely blocked the way. The empties had been withdrawn, and four heavily loaded flat cars of bridge timbers were making ready for a flying switch from the main track to the siding. While the engine, in obedience to a quick throw of a lever, kept the main way, the ponderous cars would speed down the run of track toward the tower-house.

"If they smash this tower again, as they did last year," Howard mused, "I'll

have company when I start out to look for another job."

Too much haste in just such an operation the previous spring had carried the end of a shifting freight right over the solid barrier built between the track and the tower. Howard could recall the picture as vividly as if it had happened only yesterday.

He could see in his mind's eye the litter of the demolished tower and the wreck of the cars, spread all over the down track. That track had been out of commission for nearly a half day.

But the signal-bell was ringing, and with a sigh, as his ever-recurring thoughts reverted once more to speculation concerning his boy and his future prospects, Howard turned to answer.

It was the block call for an express, just now somewhere up around the curve which hid the signal-post from view. Howard dropped the arm of the semaphore to show an open way. In a minute or two more the heavy line of cars—all Pullmans—would come thundering with mighty tread past the tower and with a screeching whistle for the lower crossing. Howard could hear the distant blast of its coming.

At that moment there was a yelling order or two up at the crossing. The commingling racket of hoarse voices, bumping cars, and shrieking brakes seemed to jar on the nerves of the absorbed superintendent.

"What are they trying to do with that old rattletrap of a clink-clanking outfit, anyway?" the irascible chief demanded, in a far-away voice and with wrinkling forehead. "Do they think they are having a wake?"

Howard turned his glance curiously toward the freight-engine. The man at the hand lever had let the timber-cars in on the siding, and had quickly thrown back the arm to keep out the engine. Just as Howard expected, the crew had sent the consignment along the down-grade siding with a hurry rush.

The haste had irritated Joe Smaltz. It was his bellowing voice that helped to disturb the superintendent. The picture of Smaltz, waving striped-jumper arms in wild rebuke, and shouting at the top of his voice, brought a faint smile to Howard's face.

The brakeman on top of the cars was

falling all over himself in his eagerness to cut out some of the senseless speed. Howard turned whimsically to the superintendent.

"They'll bump both the tower and the corporation pretty hard if they don't slow up soon," he observed.

The chief muttered something irritably, but went on with his writing without turning to look. Howard continued to watch interestedly.

The brakeman on the timber-car had scrambled, with stumbling haste, at Joe's hoarse command, toward the end of one car. He jammed his short stick in a brake wheel and sent it whirling around. It fetched up hard and fast suddenly. The man was a giant of a fellow, with unusual strength.

"Wow!" Howard ejaculated in spite of himself. The seasoned stick had snapped off short. The brakeman was hurled backward by the unexpected accident, the wheel spun itself loose instantly.

With the brakeman lying flat on his back, out of control temporarily, the leaping cars ran wild, their speed undiminished. Only a short distance now intervened between them and the tower, and Howard knew they were bound to strike with the annihilating force of a tornado. The tower would be a heap of kindling-wood in another moment.

Big, two-by-four-square Joe, the conductor, appreciated the danger also. He could see Howard at the window. "Get out!" he yelled wildly, his arms going up and down like an insane semaphore in mad gesticulation.

Howard's ejaculation and the medley of yells at last brought the superintendent to his feet. But before he had quite turned to observe for himself Howard passed on Joe's warning. "Jump! Quick!" he shouted, in an excited pitch of tone.

The deep rumble of the oncoming cars and a half glance at them satisfied the superintendent. The tower door was wide open. A leap from the outside platform might mean a broken leg, but it would doubtless save from something worse.

Howard was close behind the superintendent. The cars would strike in an instant; the tower must certainly collapse. It was only a question of how completely either of them would escape going with it.

Just then Howard heard a sound that

not only startled him, but also brought to his mind again sharply the incident of the previous spring.

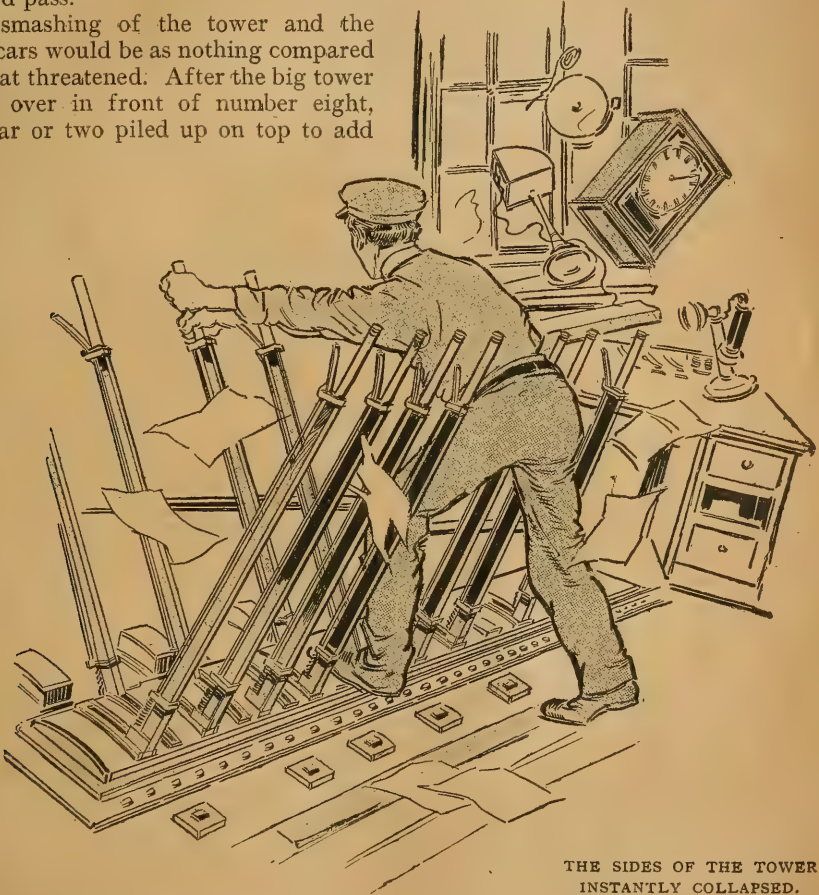
It was the whistle of number eight, about to swing around the upper curve. She would come flying by the tower in a second or two, bringing her luxurious hotel coaches along at a forty-five-mile clip, and as certainly as death the down track would pile up with wreckage before she could pass.

The smashing of the tower and the freight-cars would be as nothing compared with what threatened. After the big tower toppled over in front of number eight, and a car or two piled up on top to add

engineer would see, and, with instant suspicion, diminish speed. A second—a half second more—and it would be too late.

All this did not go through Howard's mind in so many separate concepts, however. It was all like one flash of a biograph.

The superintendent was in the very act of leaping, while Howard, for infinitely



THE SIDES OF THE TOWER
INSTANTLY COLLAPSED.

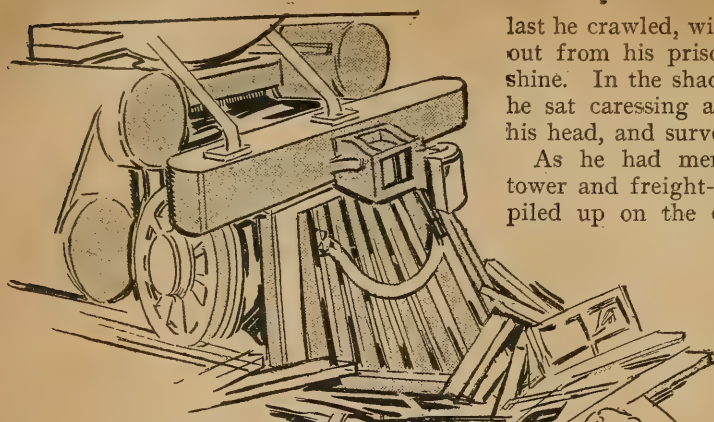
weight to the obstruction, the express would augment the heap of wreckage with a twisting, crashing pile of timber, steel, and snuffed-out lives!

The train had not yet passed the signal when Howard heard the whistle. He realized the importance of that fact. That signal told the engineer to come right along at top speed. If the block were raised at once it might not suffice to stop the express, but there was hope that the

less than a breath of time, balanced his life against the fate of the express.

As the superintendent sprang over the railing Howard turned with a whirl and jumped back to his levers. He struck at the right one by a blind instinct, without the thousandth part of an inch of lost motion.

The lever went back before his hurtling weight, and with it went a prayer that it might not be too late.



"YOU SEEM POSSESSED WITH A MANIA FOR INTERFERING WITH THE MOVEMENTS OF YOUR SUPERIORS."

He heard the barrier at the end of the siding track smash. The rumbling cars leaped the wreck; he felt the tremor of their closeness. Then there was a mighty roar and a crash. Lurching over on top of the lever which raised the blocking signal against number eight, he felt the terrific shock and heard the scream of the tower when the heavy cars rent its body apart.

The sides of the tower instantly collapsed. The floor sagged in time with the settling roof. Sheathing, lining, and framing timbers folded up like paper-boxes or shut up on themselves like jack-knives.

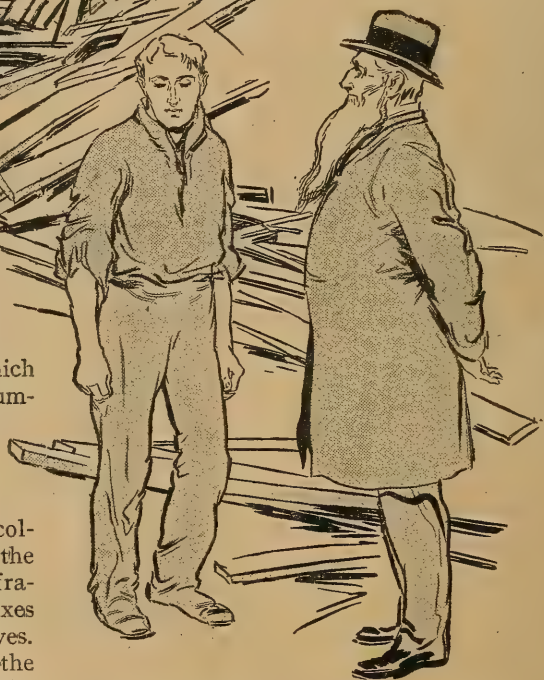
In Howard's mind, however, was the live consciousness of a quick, savage whistle from number eight; apparently enraged that the way should have been closed against her so unexpectedly. Then the broken bones of the stricken tower closed in around him and made him prisoner.

It seemed to kill him and bury him with the one action. In the general wreck of the building, which had been squeezed into a shapeless mass, much as an orange might be crushed to pulp in a strong, ruthless hand, he was as a mere seed of the fruit, gouged aside.

There was a pandemonium of voices as freight crew and villagers set to work digging him out from the maze of splintered and stabbing timbers. Howard grunted his relief and gratitude when at

last he crawled, with a little pulling help, out from his prison to the glaring sunshine. In the shade of the storage-house he sat caressing an egg-shape bump on his head, and surveyed the scene.

As he had mentally prophesied, the tower and freight-cars were more or less piled up on the down track. Number eight, panting hard, stood with her nose pushed into the debris like a dog in-



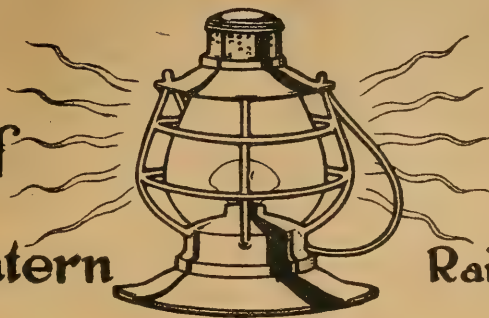
quisitively searching for a bone. The passengers had thronged out shudderingly for an inspection.

Just then Howard's attention was attracted by the approach of a gray-bearded, distinguished looking personage. It was the president of the road. To save his life, Howard could not refrain from a broad grin as he struggled respectfully but painfully to his feet. This was the second time within a week the chief had been delayed on this division.

"Young man," the president greeted him with apparent sternness, "you seem possessed with a mania for interfering with the movements of your superiors. What do you think?"

WHAT'S THE ANSWER ?

By the
Light of
the Lantern



Questions
Answered
for
Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. In future, we shall be compelled to limit its scope to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered in this department.

WHERE is the Simplon Tunnel, which I have heard is the longest in the world? What motive power is used in it, and what is the running time of the trains? I would like to know how the problem of ventilation is disposed of, as I understand that the tunnel has no air-shafts.
—O. K. W., Philadelphia.

The Simplon Tunnel is through the Alps, between Switzerland and Italy. It is the longest bore ever made by man, the exact length being 12 miles, 458 yards. Both electric and steam locomotives are employed, the former weighing about 62 tons, and are capable of hauling a maximum load of 465 tons at a speed of 20 miles per hour, the current being taken through a bow trolley from an overhead wire. The time occupied by passenger-trains in negotiating the great tunnel varies in accordance with the direction in which they are traveling, and the kind of motive power employed. The quickest journey is made by the south-bound electric trains, namely 18 minutes, and the longest by the steam-hauled north-bound expresses, from 25 to 28 minutes. Directly a train enters the tunnel a canvas screen descends and seals the entrance. While this curtain is down, and it remains so until each train has cleared the tunnel, the enormous fans

at each extremity are delivering fresh air into the parallel shaft, and at the same time exhausting the foul air from the tunnel itself. Every train is always running against a purifying draft, which almost attains the velocity of a head wind.

C. H. M., Indianapolis.—Without a doubt possibilities exist in the scheme indicated by your interesting letter, but we cannot exactly grasp how you can prevent delaying a prompt release. It would appear, if we correctly understand the idea on which you are working, that the brakes will drag, but of course your new valve is your own secret, and no doubt embodies the necessary features to counteract this possibility. The idea, so far as we can find, is new and of absorbing interest. If practicable it cannot fail in compelling attention.

HOW can defects, such as cracked plates or dangerous corrosion, be discovered in a locomotive boiler?—J. E. J., Boston.

Such defects are usually indicated by leakage when the engine is in service. They are shown by a little water or steam oozing

at the point where the defect exists. When the engine is cold a slight collection of incrustation or rust on the outside of the boiler will show that there has been a leak.

A defect in the fire-box will often be shown by a leak at the mud-ring. When a fire-box plate is cracked it usually opens suddenly, so that the leak shows at once. Flues are liable to leak when there is no other defect excepting that they need calking, but when this is done the flue-sheet should always be examined to see whether it is cracked.

Internal corrosion or grooving, unless it has become so serious as to cause an external leak, cannot be discovered except through an internal inspection of the boiler. To do this the dome-cover must be taken off, and a person must go inside of the boiler and carefully examine every part which is accessible. To make a thorough internal inspection all of the flues should be taken out.

When water is of a corrosive character, or contains much solid matter which is deposited inside of the boiler, such an inspection should be made frequently, but when the water is pure it is not essential to do it so often. Our personal opinion is that even in the presence of good water conditions all of the flues should be removed at least once in two years.

H. E., Ormond Beach, Florida.—In addition to building many of its own locomotives the Pennsylvania Railroad contracts about equally with the Baldwin Locomotive Works and the American Locomotive Company, which latter firm has a number of separate plants. Engines are not contracted for abroad for the use of this railroad.

K. A. L., Skagway, Alaska.—There is no difference in the flag signals used on California railroads and those of any other State. All trains while running must display two green flags by day and two green lights by night, one on either side of the rear of the train.

Two green flags by day and night, and in addition two green lights by night, displayed in the places provided for that purpose on the front of an engine, denote that the train is followed by another train, running on the same schedule and entitled to the same timetable rights as the train carrying the signals.

Two white flags by day and night, and in addition two white lights by night displayed on the front of an engine, denote that the train is an extra.

A blue flag by day and a blue light by night, displayed at one or both ends of an engine, car, or train, indicates that workmen are under or about it.

A red flag is used only to stop trains.

A yellow flag indicates "proceed with caution," and is commonly used by section-men while working on track.

ARE any roads in the Eastern States running trains with electric locomotives?

(2) What is the length in miles of these roads?

(3) What are their names, and where located?

(4) What is the pay for engineers running these trains?

(5) Do you believe that electric trains will shortly be substituted for steam on the Eastern railroads?—H. W. C., Brooklyn.

(1, 2, and 3.) The New York, New Haven and Hartford Railroad, from New York to Stamford, Connecticut, about 37 miles; the New York Central from New York to High Bridge and to North White Plains, about 24 miles; and the Baltimore and Ohio, from Camden Station, Baltimore, through the belt-line tunnel to Mount Royal Station, are the three prominent illustrations where this power is applied to all classes of train service.

(4) The pay for engineers is the same as on the steam roads: about \$3.85 per day of one hundred miles, all over one hundred miles to be paid for in proportion. We can't say exactly what the rate is on either of the three roads mentioned, but in passenger service it will be found to approximate closely to this figure. Freight-rates are somewhat higher, generally four cents per mile.

(5) No, we never did think so, and developments of the past few years have not brought any change in this opinion. In a recent report of the Electrical Commission of the State of Massachusetts we note the following from Mr. C. S. Mellen, president of the New York, New Haven and Hartford Railroad, which is of much significance in view of the fact that this road is more heavily involved in electric transportation than any other:

"We believe we are warranted in saying that our electric installation is a success from the standpoint of handling the business in question efficiently and with reasonable satisfaction, and we believe we have arrived at the point where we can truthfully say that the interruptions to our service are no greater, nor more frequent, than was the case when steam was in use. *But we are not prepared to state that there is any*

economy in the substitution of electrical traction for steam; on the contrary we believe the expense is very much greater."

In a recent editorial comment the *Railroad Age-Gazette* says:

"It may be accepted as conclusively demonstrated that the New York Central and the New Haven roads are moving trains by electricity more economically than they moved them by steam, in their suburban district. To enable this to be brought about, however, extremely heavy capital costs had to be assumed and the charges on these capital costs make the entire operating cost, including overhead charge, far higher than it used to be in the days of steam operation."

It is quite apparent, after an entirely disinterested study of the general situation, that the problem of electrification will be approached if not with actual timidity at least quite gingerly by the large railroads. Electric operation, as compared with steam, shows to greatest advantage in urban and suburban passenger service, and it is viewed with sufficient confidence in that direction to warrant its gradual introduction, but from the present outlook there is little likelihood of its supplanting steam for trunk lines, and especially in freight service.

J. M., Buffalo.—If you have just been promoted after four years' service, and are running now, it seems to us that your interests would be better served by remaining on your own road, where you are thoroughly familiar with conditions and can certainly do better work than under strange environment.

The Grand Trunk Pacific is under construction, and its operating department is not fully organized as yet. If you will address E. J. Chamberlin, vice-president and general manager, Montreal, Quebec, he will no doubt advise you in regard to the opportunities in your line on the western end of the road. There might be an opening, and if anywhere, it should be on a new railroad.

The railroads of Florida have employed engineers in the past, and no doubt continue the practise, especially on divisions where colored firemen are employed and who are not eligible for promotion. You might address the following master mechanics of the Atlantic Coast Line, at the points named: J. Paul, High Springs, Florida, and H. R. Stevens, Sanford, Florida.

S. McC., Butte, Montana.—There is no real uniformity in the attitude of the various roads toward the use of glasses by engineers. It would naturally depend upon the charac-

ter of the eye trouble which makes their use necessary. The railroads, as a whole, are inclined to be reasonable in this matter, and, if vision is sufficiently acute for the requirements of the service, no objection would likely be made to the use of glasses merely for reading purposes. Under the general organization of railroads it would not be possible for a yardmaster to become a conductor, unless of course he went on braking as a new man, and so on up.

E. N. L., Sandown.—The Denver and Inter-Mountain Railway is now known as the Inter-Mountain Railway. C. F. Propst is vice-president and general manager. Address: Denver, Colorado.

WHY can an electric locomotive start much faster than a steam one?

(2) A claims that the engineer of a steam locomotive can make a quicker start with his train than is usually in evidence. B insists that if started any faster than the usual practise the engine would be strained. Please explain this.—W. V. Z., Kansas City, Missouri.

(1) Electric locomotives are generally built with every axle directly driven by a motor, and thus the total weight is made available for adhesion. This naturally results in a more effective start and more prompt acceleration than in the instance of the steam locomotive, where the power is transmitted through the medium of rods.

(2) Starting a locomotive is much dependent on the weight of the train and the condition of the track, not to mention schedule requirements. It is impossible to strain the engine, in the sense which B views it. If too much steam is admitted the wheels will simply slip without doing any harm in particular, except that the fire may be torn. You can safely depend on it that all locomotives you have seen started were properly put to work under the conditions present at the time, and which of course were duly weighed by the engineer.

Would advise you to ask at the information window in the Union Depot at Kansas City in regard to your third question, which we did not include above. We are of the opinion that the number is nineteen roads, but our record is hazy.

WHEN the Pennsylvania Railroad commences operation with its electric locomotives where will they be uncoupled from the train and the steam engine put on? Will they keep the depot which they now have in Jersey City after the change?

(2) How does an oil-burning locomotive operate? Do they have burners the same as an oil stove? How many gallons of oil does the average oil-burner use in an hour?

(3) How many gallons of water does the average compound locomotive consume in an hour?

(4) Will electricity ever take the place of steam locomotives, or the mono-rail the place of the two-rail track?—C. F. E., New York.

(1) So far as we can learn, the plan under consideration at present is to cut the steam locomotive off the train at Harrison, New Jersey, and use the electric engine thence to Sunnyside Yards on Long Island; that is, in either direction these points will mark the limits of the electric zone. It is all conjecture so far in regard to the present depot in Jersey City. Rumor has identified the Erie Railroad with it, after the Pennsylvania vacates, but this is scarcely probable, as the Erie is at present spending a great amount of money in the vicinity of its own Jersey City terminal. The Lehigh Valley and the New York, Susquehanna, and Western are tenants of the Pennsylvania at Jersey City, but it is the intention of the Erie to accommodate the latter road in its Jersey City terminal, and the Lehigh Valley has scarcely sufficient passenger business to warrant taking over the entire Pennsylvania terminal. If any decision has been reached in this matter nothing has been given out as yet.

(2) Irrespective of the difference in fire-box arrangement to burn oil instead of coal the oil-burning locomotive is in all other respects similar to the coal-burner. There is some difference in the size and shape of burners, but, as a rule, only one burner is employed, having a slot in the end about 3 inches long and $\frac{1}{4}$ inch wide, to which the oil flows from the tank.

The oil emerging from the slot is ignited and comes in contact with an atomizing steam-jet which spreads the blazing globules into a roaring fire. The latter is rather intermittent in action and, therefore, hard on flues and fire-box, subjecting them to varying temperatures.

We cannot answer your question relative to the gallons of oil consumed per hour, as this would be dependent on the size of the engine and the conditions under which it was working. The tanks carry from 2,500 to 3,500 gallons, and these sizes are sufficient for a ten-hour or longer run with a freight-train.

(3) Would depend upon the size of engine, weight of load, and speed. There is no such thing as an average compound engine. They are supposed to be more

economical with water than a simple engine. Quantity would vary with conditions.

(4) See answer to H. W. C., this issue. As for the mono-rail: no.

H. R. W., Ottawa, Canada.—The Burlington is a member of the Western Passenger Association. The other two roads you mention, the Great Northern, and the Northern Pacific, are members of the Trans-Continental Passenger Association. In regard to the local passenger rates per mile in Wyoming, Montana, and Idaho this should be taken up direct with the lines traversing that territory, and they will no doubt be glad to furnish the information.

N. G. T., Milledgeville, Georgia.—The longest total wheel-base on record for a freight-engine and tender is 83 feet 6 inches. This is on Southern Pacific engine No. 4000, which was fully described in the December Light of the Lantern. This dimension, as we have before explained in this department, means from the center of the first axle on the engine to the center of the last axle on the tender. We have no figures for the total length from the tip of the pilot to the rear end sill of the tender. To reckon with this might imply the addition of ten or more feet.

J. M. K., New York.—Both engines which you mention are representatives of distinctively modern practise. There is no difference in the cost, about \$20,000, but the Erie engine is the more powerful, provided, of course, that you refer to its Pacific type, numbered in the "2500's."

IN fitting connecting-rod brasses A contends that the brasses should be fitted so that when the key was driven the brasses would meet brass and brass without pounding. B argues that the brasses should be fitted so that the two halves will be 1-16 of an inch apart when the key is driven.

(2) A argues that the actual horse-power of an engine cannot be ascertained without an indicator test or subjecting the engine to a brake test. B's theory is that if the stroke and diameter of the cylinder and the boiler-pressure is known the horse-power can be calculated.—W. M., Winnipeg.

(1) A indicates the best practise and the one generally followed, especially in the instance of heavy power. In addition to his correct view, care should also be taken to allow a little clearance where grease is used as a lubricant instead of oil. This is

because the pin must warm up slightly to start the grease running, and all brasses running on pin grease are always warm in comparison to those on oil—hot, almost.

This clearance in the bore of the brass of say 1-32 of an inch, on a large, main pin, will take care of the expansion mentioned, and which without it would likely clamp the brasses on the pin with the usual result. There was a time, years ago, when power was light and better work done on engines, when brasses were filed as B suggests; but such a practise in the present day, when engines are run in the chain-gang and deprived of the care of regular engineers, would prove most disastrous.

(2) In this instance, B has the better of the argument, as with the figures known it is not necessary to resort to the tests mentioned. Horse-power is the product of the force multiplied by the distance through which the force moves in one minute, divided by 33,000. In the case of a two-cylinder simple engine, it is to be found by multiplying together mean effective pressure, the length of the stroke in feet, the area of the piston in square inches, and the number of strokes per minute, dividing the product by 33,000 and squaring the result. If you will refer to answer to G. A. J., in the *Light of the Lantern*, November, 1909, issue, you will find the formula quoted and explained.



M. K. T., Junction City, Kansas.—Both the Burlington and the Santa Fe subject all applicants for the train service to the usual eye test, but we cannot speak authoritatively on whether a physical examination is a requisite or not.



WHY is the engineer not on the left side of the cab, as on that side the levers, throttle, gage-cocks and everything else would handle much easier?

(2) Why was the diamond shape smoke-stack discarded?

(3) What is the address of the *Locomotive Firemen and Enginemen's Magazine*?

(4) I have invented a kind of valve-gear for locomotives, which derives its motion from the cross-head only, the link being stationary. It is the valve-stem that moves up and down the link so as to give its motion (forward or backward, cut-off), to the valve. Do you think I could get a patent on it?

(5) Give the names and addresses of master mechanics on the Canadian Northern.
—R. F. P., Grand Anse, New Brunswick.

(1) That time-honored custom puts him on the right side is about the only answer

we can give. It would be as difficult to say just why as to explain why so many British and foreign engines have the engineer on the left side, and why their general practise is to run their trains "left-handed," whereas ours uniformly run on the "right-hand" track. When you walk on the Strand you turn to the left; while on Broadway, to the right.

It appears more to the point to have the engineer on the right side of the cab in this country, as we run on that track, and all signals and stations are on that side of the track; assuming, of course, a double-track road. The engineer can make better station stops and better water-plug stops than if the reverse was the case. It is a matter of little moment about the levers, etc., as they can be handled as rapidly under the present arrangement as though on the other side. At all events this particular point could never attain the prominence of being an objection.

(2) This form of smoke-stack for use on wood-burning or bituminous coal-engines, was in extensive use before the innovation of the extended smoke-arch. Since then they have fallen into general disuse, as the smoke-arch proper now catches and retains the sparks, which work was formerly done by the peculiar internal arrangement of the diamond stack itself.

This smoke-stack consisted of a central pipe and a conical shaped cast-iron plate called the cone, or spark deflector, which, as the latter name implies, was intended to deflect the motion of the sparks and cinders so as to prevent them from escaping into the open air while incandescent or "alive." A wire netting was also provided, intended as a sort of sieve to enclose the sparks and cinders, and, at the same time, allow the smoke to escape. These were removed at the end of the run through a hand hole at the base of the stack.

This general arrangement was cumbersome and unsightly, and when it was found that a simple arrangement of netting within the smoke-box would serve to accumulate the sparks within the latter and permit the use of a straight stack, it was generally adopted.

(3) Indianapolis, Indiana.

(4) This is evidently a form of "outside valve-gear," prominent examples of which in present practise are the Walschaert and the Joy motions. The former derives its motion in combination from a crank-arm on the main crank-pin and the cross-head, while the Joy derives its motion from an arm attached to the main rod near the wrist-pin. As your motion is from the cross-head solely, as your question infers, it would seem that

the idea can be patented as not conflicting with these others. We could tell better, however, if we could examine a drawing of the motion. Consult a reliable patent attorney, who will look it up for you at nominal cost.

(5) The master mechanics on the Canadian Northern are: A. Shields, Winnipeg, Manitoba; J. Klye, assistant master mechanic, Edmonton, Alberta; and G. H. Hedge, assistant master mechanic, Winnipeg, Manitoba.

H. G. W., Sparta, Minnesota.—The only woman chief train-despatcher of which we ever heard was Miss Edith Jarnigan, of Chattanooga, Tennessee, who held down this job on the Chattanooga Southern, and may possibly be there yet, but we have no definite information covering the last three years.

H. W., Annapolis, Maryland.—On roads where the telephone has been substituted for the telegraph in train despatching, the former telegraph operators retained their positions, becoming telephone operators. In addition to their thorough familiarity with the train service, the spirit of fairness would dictate this without any other consideration.

ARE there any iron box cars? When was the first one built, and what road uses them?—J. J. H., Louisville, Kentucky.

Forty-six years ago the Baltimore and Ohio built 200 box cars of one-eighth inch iron. The Union Pacific built in its own shops the first two embodying modern practise in the early part of 1907. They are in very limited use. General merchandise, or anything else that is affected by high temperature, cannot be shipped in them because they absorb so much heat. It may be said that their use so far has been largely experimental.

R. C. B., Pomona, California.—In view of the fact that freight-cars are interchanged all over the country, a lock on the doors would be of little value in protecting the contents. Because of this interchange there must necessarily be a multiplicity of keys, and, besides, the lock would have to be standard. The present car seal is better. If the train is carefully inspected at each division point, according to rule, its condition will indicate to within one hundred miles or less the territory where the car was

entered. On the other hand, a lock could be just as readily locked as unlocked, and the car might go two thousand miles after, before a robbery was discovered.

WHY are engines on fast through trains changed at the different division points? Does the time required to oil the engine have anything to do with the changing, or is it due to the fact that the bearings are heated?—C. E. L., San José, California.

They are changed frequently because after a hundred miles or more the fire becomes dirty and there may be an undue accumulation of sparks in the front end, both of which conditions operate against steam-making. In addition to this, if the run was prolonged additional coal would no doubt be necessary; if not, men would have to be placed at designated points to shovel ahead the coal remaining on the tender, so that the fireman could reach it without handling it twice. All this requires time and money.

If an engine is run over two divisions instead of one, which your question implies, it places it in the hands of two crews on the one run, as each crew runs only on its own division. This dividing responsibility for the engine has not been found to work out very well in practise.

Up to recent date, the Erie Railway ran the same engine through from Jersey City to Susquehanna, Pennsylvania, about 193 miles, although the crews were changed at Port Jervis, New York—89 miles. Some years ago, the Southern Railway ran the same engine from Alexandria, Virginia, to Danville, Virginia, 249 miles, the crews being changed at Charlottesville, Virginia, 108 miles from Alexandria. The Atchison, Topeka and Santa Fe once ran the same engine regularly between Winslow, Arizona, and Albuquerque, New Mexico, 286 miles.

All of these, however, have abandoned the practise in favor of the shorter division and to keep the engine in the same hands while it is on the road. The question of oiling has little or nothing to do with it. It is not a fact that the bearings are hot, as your letter suggests. If everything is running all right there is no more liability of a hot bearing in two hundred miles than in one hundred.

J. S. S., Wichita, Kansas.—The Pennsylvania and the New York Central roads return a portion of the money paid for extra time on their eighteen-hour trains in the instance of these trains arriving late at their destination. The rate is \$1 per hour. It is safe to add, however, that neither of

these companies has disbursed a fortune in this manner, as the trains are uniformly on time. We think that these are the only two roads making such refund.

A. R. S., Hoosick, New York.—Two engines are of course employed because one would not suffice to haul the train on schedule speed. Their use is often unavoidable where extra cars are added, although it is evaded wherever possible, as it adds greatly to the expense of getting the train over the road.

WHAT steam roads enter Baltimore, Maryland?

(2) What is a blower on a locomotive? Is it operated by air or steam?—F. S. Greenville, Ohio.

(1) Philadelphia, Baltimore and Washington; Northern Central; Baltimore and Sparrows Point (Pennsylvania system); Baltimore and Ohio; Western Maryland; Annapolis, Washington and Baltimore; Maryland and Pennsylvania.

(2) It is a pipe to convey steam from a valve on the boiler-head to the exhaust tip, or base of the stack, in order to create a draft and stimulate the fire when the engine is standing. It is also used to diminish black smoke on approaching a station, when steam is shut off.

In reply to your other question, which we did not reproduce above, would suggest that you take this matter up with the nearest local secretary of the brotherhood mentioned. He will give you better information than we can, as we are unfamiliar with its constitution and by-laws.

P. H. S., Seattle, Washington.—No available figures on box cars. You might secure it, however, from J. W. Taylor, secretary, Master Car Builders' Association, Old Colony Building, Chicago, Illinois.

WILL you inform me what the Telegraph Operators' Federal Law is, which went into effect in 1907?—H. D. G., Gowan, Minnesota.

The federal hours of service act, to which no doubt you refer, was approved March 4, 1907, to become effective one year from the date of its enactment. That feature relating to telegraph operators is best explained from the following administrative rulings of

the Interstate Commerce Commission issued for the proper interpretation of this act:

Section 2, par. 3: "A telegraph or telephone operator who is employed in a night and day office may not be required to perform duty in any capacity or of any kind beyond nine hours of total service in any twenty-four hour period."

Just prior to March 4, 1908, there was a concerted effort on the part of some railroads, some fifty-six of them filing formal petitions, to secure an extension of the time within which they should comply with the law. The commission, after full hearing as prescribed by the act, decided that the carriers had failed to establish the "good cause" prerequisite to the extensions desired, and their petitions were, therefore, on March 2, 1908, in all instances denied. The law became effective on March 4, 1908.

C. T. M., Boulder, Colorado.—Air or tank hose is made of alternate layers of rubber and canvas, although the latter hose is frequently reenforced by a coil of wire extending its entire length. There is no such thing as all-steel hose for these purposes, at least as a standard practise.

R. E. C., Pittsburgh.—We don't believe there is any road, except possibly in some foreign country, where a correspondence school certificate would serve to procure a job running an engine. All roads insist on previous experience as fireman, or if they employ an engineer he must show that he has run an engine. In this country, he could never have run one unless he had fired.

WHAT are the newest railroads in British Columbia and who are their chief engineers?—G. D., Baltimore, Maryland.

Grand Trunk Pacific, B. B. Kelliher, Winnipeg, Manitoba; Canadian Northern, T. Turnbull, Winnipeg, Manitoba; Spokane International, E. C. Taber, Spokane, Washington; Temiskaming and Northern Ontario, S. B. Clements, North Bay, Ontario; Niagara, St. Catherine and Toronto, E. F. Seixas, St. Catherines; Quebec, Montreal and Southern, F. D. Anthony, Montreal, Canada; Atlantic, Quebec and Western, W. L. Browne, New Carlisle, Quebec; Algoma Central and Hudson Bay, C. N. Coburn, Sault Ste Marie, Michigan; Great Northern, Stewart, Seattle, Washington.



WHEN "WEARY WANDERLUST" WRITES.

The Signs and Symbols Which Enable the Wandering Brotherhood of Boes to Size Up the Inhabitants and Railway Chances in a Wayside Village.

A SMALL station in the Far West was once presided over by a young woman, Miss Ethel Waters. She was prepared for the boes that continually floated down the pike in her direction, always meeting them with a pleasant word and guiding them on their way with a pleasant smile. But one day her faith in mankind received a severe shock. A Weary Wanderlust, with a *Romeo-and-Juliet* disposition, drifted along. After resting and chatting for a while, he began to pour out a stream of violent love to the lady-agent. At first she laughed, but Willie was deadly serious.

His outburst became so violent that she had to call in a freight-hustler who was loading a near-by box car. In a few minutes Weary Wanderlust was doing his familiar pirouette along the ties. His young romance had died a sudden death.

However, the next morning when Miss Waters came to open up she was surprised by a sign that had been drawn on the door.

"Who put that there?" she asked an early operator, as she glanced coily at the marks she felt were meant for her.

"The tramp that we threw out yesterday," was the reply, given with exaggerated pity for the supposed love-sick swain.

Miss Waters smiled, believing the sign to be the last love-message of her admirer from hoboland. To her the sign seemed to be a heart pierced by two arrows. Of course there is a distinct difference between a real, live, unwashed hobo making ardent advances to one, and such romantic long-distance talk as this. Therefore Miss Waters

let the sign remain. But what she really beheld was this:



It was not a heart, but a circle, that was pierced by the two arrows. And among free-riders that signal means: "Get out of this town quick as possible."

Tramps have many other signs. For instance, when a man fresh from the rods is confronted by this,



on a sign-post or fence in or near a railroad yard, it means: "Yardmen here all on the watch-out."

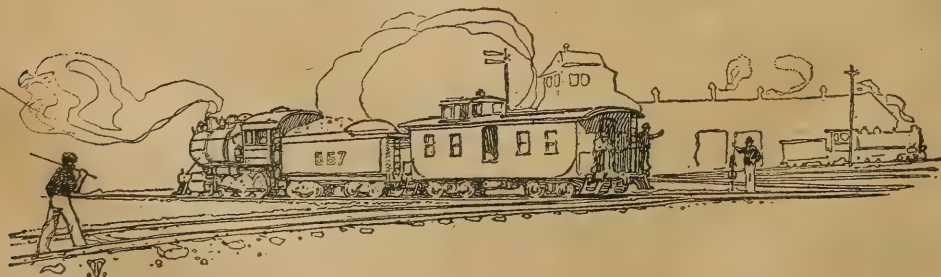
The following signal means: "Chain-gang in next town. Get off here."

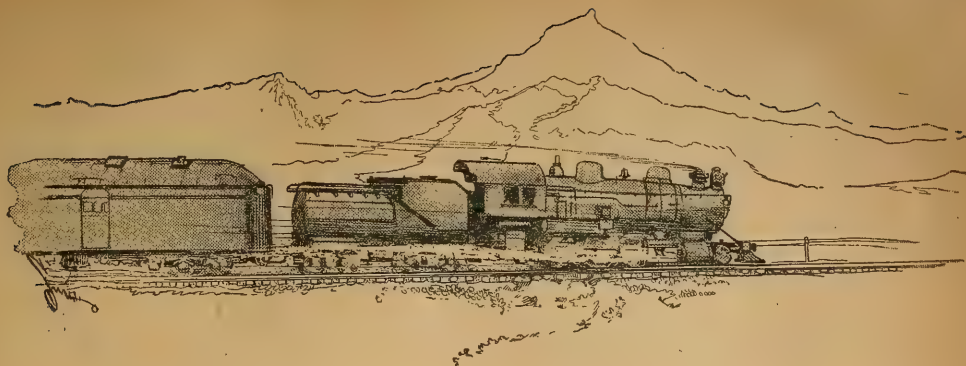


Finally, here's a signal that all free-riders are glad to meet:



It means, literally, "Dead easy here." Literally translated, this hieroglyphic says: "You can leave the train here without fear of being molested. Taxpayers willing to support you. Plenty of free lunches and bread-lines. No railroad detectives."





Signals That Are Perfect.

BY PETER MULLIGAN.

FOR nearly three thousand years the semaphore has held a proud place in the communicating facilities of the human race. At the present time the millions of traveling human beings and the billions of dollars' worth of commerce that it guides and guards give the slender ash-blade a unique position in the story of our development. But, in spite of its past service and present preeminence, it would seem as if the day of its decline has arrived. Electric signaling has been followed by electropneumatic, and this in turn by cab signaling, until one might easily believe that the time is near when a deaf, dumb, and blind man can run an engine with perfect safety, if not with speed.

Things That Have Happened and Are Happening To Make Railroads the Safest Place in the World, and How Signaling Has Progressed Until It Is Both Signaling and Controlling.



THE first semaphore was used in Greece before the birth of Christ. With the aid of its long blade, a system of optical telegraphing was carried on which flashed messages from hill to hill, and a code developed which was used on the Mediterranean down through the Middle Ages. At the time of the French Revolution it had come into common use in northern Europe, and the Prussian system of the early nineteenth century necessitated the use of four blades permitting four thousand combinations.

But, after the invention of the electric telegraph, the semaphore would have been forgotten if it had not been for its value in signaling trains. Many other forms of signals were tried before the semaphore was adopted as the standard for railroading, the most common of which was a disk, half solid and half perforated, giving it the appearance of a waffle. When the disk showed the solid portion, the road was clear; when it revolved so that the perforated section appeared, the track was busy.

Sir Charles Hutton Gregory was the first to think of the use of the semaphore

in connection with railroads, and he erected one at Charing Cross in 1841. The blade was placed at the top of a pole as at present, but it was not balanced, and normally hung down at "clear," unless the signalman pulled it up with a cord, which he fastened about the pole with a slip-knot.

The First Semaphore.

When the danger had passed, he loosened the cord and the semaphore dropped down. Since that time the horizontal position has always indicated danger and the vertical clear.

From this crude device has developed the whole intricate system of modern signaling. Other forms have been installed, but none have stood the test of comparison, and the semaphore has long since come to be recognized as the standard. It has held its position undisputed until now, when the recent developments in cab signaling threaten eventually to do away with it altogether.

In the beginning, the signal was used merely to show a time interval. There was no means of knowing how far a train had progressed until it reached the next station, and then only if there were a telegraph operator there. The practise was to show a danger-signal until a train had left the station five or ten minutes, according to its speed, then indicating "clear," trusting to luck that the train had kept going. Rear-end collisions were common, in consequence.

Birth of Block Signaling.

The necessity for greater safety caused the early development of block signaling. The idea then, as now, was to divide the track into sections, or blocks, never permitting more than one train on any one block.

Under permissive signaling, this rule is regularly violated; but the principle involved remains intact, although its application is not strict. Men stationed at switches and irregular intervals were the original dividing-points at which blocks ended and began, but they soon gave way to definite markings, the operator at the farther end of the block telegraphing back when the block was clear. The

trains waited at the entrance to each block until the conductor or engineer had received a written message giving him permission to proceed.

This system was well enough as long as the traffic was not heavy, but it required too much track for each train to be economical on a busy road. The first development with the purpose of securing speed was the distant signal invented in the early fifties, and erected as an experiment at Meadowbrook, near Edinburgh.

"Distant" Blade Arrives.

This proved so successful that it was soon generally used. It was placed down the track in advance of a station, and gave the engineer information whether it was safe to enter the block in which the station was located.

The distant signal was made almost from the first with a "fishtail," or "swallowtail," to distinguish it from the home signal, which was square at the end. Like the home signal, it was operated by hand, a long wire extending down the track to the semaphore pole, connecting with a crank, which lifted the blade. As the distant signal was often out of sight, the signalman was by no means certain that the blade had fulfilled its function when pulled; the home signal he could see and correct if it failed.

For many years all signals were worked by hand. The lever came into use instead of the handle on the end of a wire or rope, but no mechanical appliance was found successful for a third of a century.

Electricity was suggested as early as 1842, and was put into operation on the Eastern Counties Railway, but electrical appliances were so uncertain in those days that a disaster arose from its use in 1844, which caused its abandonment. A signal which should have gone to danger failed to work, something going wrong with the current, and two trains collided with a loss of more than twenty lives.

Electricity's Bad Start.

Electricity was at once set down as unreliable, and the horror of the tragedy hung over the railroad world so long that it was not tried again for many years.

Then the plan was revived to some extent in America.

When the change once came, the gap between manual signaling and automatic signaling was made at a leap. The old system, with a man working both home and distant signals with a lever, continued in operation with hardly an improvement until 1871, when the first automatic was placed in operation on the Eastern Railroad of Massachusetts, now part of the New York, New Haven and Hartford.

The Science Revolutionized.

This brought about a revolution in the whole science of railroading. Instead of having a man with the lever do the work, the train passed over a track instrument, which lay close beside the rail and was pressed down by the wheels of a passing train.

As the track instrument was depressed, it operated a bar connecting with a crank at the base of the signal-post, turning it so the signal went to danger. As the train passed on and out of the block controlled by the signal, the track instrument arose, the bar shot back, and the blade dropped to "clear."

The track circuit system has since entirely superseded track instruments. John D. Taylor, of Chillicothe, Ohio, took out the first patent on an electrical signal, and tried it at Cincinnati in 1891. Although it was quite successful from the beginning, it was not taken up extensively until 1900, when Taylor had secured sufficient capital to manufacture on a large scale. Now all automatic systems are operated, in part, by electricity.

Combining Two Systems.

The principle of the electric automatic system is simple. A current is generated beside the track at one end of the block and communicated to one of the rails. It passes from rail to rail through the fish-plates and special bonds placed there for the purpose until it reaches the end of the block, where an insulator between the ends of the rails prevents the current going farther.

A wire at that point connects it with a relay in the form of an electromagnet

through which it conveys the current to the other rail of the track. The current then passes back through the second rail to the generator.

When there is no train on the block, the electromagnet in the relay is energized by the passing current, and an armature, through which the current passes, is held tight to the magnet. The armature will remain where it is unless something short-circuits the current; and as long as it remains, the home signal, which is operated by the current through another electromagnet in the signal-box, will be at normal.

How It Works.

As soon as a train strikes the rails, the wheels pick up the current of electricity in the track and send it from rail to rail across the axle, instead of by the longer route through the relay-box. A portion of the current continues to pass through the relay-box, however, but it is not strong enough to hold up the armature, which drops.

When this happens, an armature in the signal-box also drops, making another connection and causing a different current, which sets the machinery in the signal-box in operation.

All systems are not the same, but the principle of breaking the circuit does not vary. In all, the dropping of the armature creates an opposing current which actuates the machinery enclosed in the signal-box.

In the case of the home signal which is at clear, the dropping of the armature sends a current into the signal-box which energizes various cogs and cranks, moving the blade to danger. In some systems there are two armatures in the signal-box, one a clutch magnet, which pulls up the signal by the strength of its clutch.

Cannot Go Wrong.

When the train passes off the rails and out of the block, the current through the relay is restored, the armature is lifted, and the current in the signal-box is cut off. The whole mechanism is immediately deenergized, and the wheels in the signal-box are revolved in the opposite direction by the weight of the blade,

which, having nothing to support it, falls back to its original position.

In the normal danger system the blade rises to vertical and falls to horizontal. In a normal clear system it rises to horizontal and falls to vertical. It depends upon how the blade is fastened to the post.

The distant signal is operated in the same way, but it receives its current by the passing of the train on a more distant portion of the track, perhaps in the fourth block beyond. The train entering the block with which the distant signal is connected short-circuits the current and causes the armature to drop simultaneously with the home signal at that point.

The new current created by the dropping of the armature communicates the train's approach to the distant signal several blocks ahead, and it flies to caution.

As the train passes into the next block it picks up the same current again, and, although the train passes out of the first block, the current is maintained by the corresponding relay in the next block, and so on until the train reaches the block at which the distant signal is situated.

As each distant signal reaches back through several blocks, a multiplication of relays is needed. These are provided for all in one relay-box in each block by adding an electromagnet for each additional distant signal.

Would Work Any Distance.

In practise, distant signals do not give notice of a train's approach more than four blocks distant; but it would be possible to do it over a much greater stretch of track.

As soon as the train has passed into the block at which the distant signal is situated and passes out of the preceding block, the current which operates the distant signal is shut off, and it falls to its normal position by gravity.

In a double-track road there is much less complication of wires and relays than on single tracks, where trains are traveling in both directions. If the signals were communicated only from block to block on a single track, a head-on collision might occur at the entrance to any block, as the distant signal only indicates caution, and the engineer does not bring

his train to a stop until he sees the semaphore on the home signal at danger.

To avoid this risk the signals overlap into the adjoining blocks, a train's approach not being heralded from the time it enters the block, but half-way into the block ahead. At the warning, the train which is in sight of the home signal comes to an abrupt stop, and the other one, which is slowly approaching, is brought to a standstill as soon as it sees the home signal at danger.

One Blade for Several Signs.

The customary arrangement of having two signals on each post—the top one for the home signal and the lower for distant signal, has been modified in several new systems installed, one blade doing the work of two. Instead of the upper blade remaining unmoved and the lower one operating while the train is approaching, and the upper operating and the lower dropping as the train enters the block, the single blade moves to an angle of forty-five degrees for caution and to horizontal for danger.

The mechanism is not radically different where one blade is used instead of two. There is, in fact, an economy of power, and, where it is being used, it has been found to be more effective than the double system, as it leaves no room for confusion in the mind of an engineer on a road where there are several tracks.

In a normal-clear system the home signal remains at vertical at all times when the track is clear. In a normal danger system it remains at danger all the time until a train enters the block in advance, and then it goes to clear. Additional wiring is necessary to communicate the train's presence in the block ahead, but otherwise the system is not different from the normal clear. In both systems the semaphore-blades, which are made of ash and are light, balance so as to fall to danger if anything goes wrong.

Same Principle in Both Systems.

The greatest care in the making and installing of the semaphore systems is needed, as they are left to operate by themselves, and receive only the occasional attention of the maintainer and

batteryman. Faulty construction must be avoided; but this is not difficult, as there is only comparatively simple machinery in the signal-box, which alone could prevent the signal falling to danger.

If the wiring should be defective, or any accident occur to the batteries or relays, the semaphores would all go to danger and remain there.

Elaborate Endurance Tests.

At the factory of the Hall Signal Company at Garwood, New Jersey, the first semaphore made by this company is still standing in the testing-room. All about it are dozens of other semaphores and signal-boxes of later design just completed and left there to operate for a week continuously to give any defects an opportunity to show themselves.

The original is now operated over 700,000 times, and has not yet shown any signs of wear. This gives some idea of the life of the mechanism. If it had been out on a track over which a hundred trains passed daily, it would have taken twenty years to reach the same point.

After a system is installed the signal engineers of the railroads give a further test by operating it a week without the semaphore-blades, or with orders to the engineers to ignore the signals. If at the end of that time it has not developed any failing, its future rests with the main-tainer.

There are 11,000 miles of railroads controlled by the automatic system as against 50,000 operated by the manual system with the aid of telegraph and written orders. No transcontinental system is as yet fully equipped with the automatic system; but, under the Harriman régime, the Union Pacific was changed to the automatic over thirty-five per cent of its length.

The Automatic Stop.

Danger from defective signaling is practically removed by the automatic system, but it is still possible for the engineer to run past signals. This he could not do if the automatic stop were in general use; but it is installed in this country

now only on the Subway systems of New York and Boston.

In the Subway systems, as soon as a train runs upon a block occupied by another train, a trip lifts up from the side of the track, so placed as to strike the end of an air-brake coupling which hangs down at the side of the forward wheel. If the engineer does not see the signal, or is for any reason disabled, the trip strikes the loose coupling as the train speeds past, throwing it open and setting every brake on the train.

There is no possible way to avoid that trip. There is stands, inexorable as long as there are wheels on the block. As soon as the train leaves the other end of the block the trip drops, and the track is clear again.

Eliminating Human Element.

So far, experiments in this country with the automatic stop have not proved successful, as the trip becomes clogged in bad weather. Better results have been obtained, however, in England, where the automatic stop and cab signaling have developed side by side.

Two different forms of cab signaling have been devised, the audible and the visible; and in some cases both are used for additional safety. In the Morris and Crabtree system, as the train passes a danger signal, a track instrument communicates the fact through a current to the wheel, which sounds a bell in the cab. Each time, after passing a signal, the engineer must reach up and adjust the machinery.

The method invented by E. A. Bowden is, if anything, more unhandy. A steam-valve, operating on the principle of a safety-valve, is placed in the cab. The steam is constantly trying to open it, but cannot, on account of a lever which is held in place by a wooden rod reaching down close to the track.

When the engineer passes a danger-signal, a trip placed beside the track strikes the wooden rod, breaking it, and allowing the steam to escape from the valve. After each whistle, a new rod must be fastened in by the engineer.

The most successful of the cab signals has been installed by the Great Western Railway in England. As a train passes

into a block, if the track is clear, a bell rings in the cab; if there is danger ahead a whistle blows, the whistle taking the place of the distant signal. Simultaneously with the ringing of the bell a small semaphore-arm in the cab goes to clear; when the whistle blows, it moves to danger.

The signals are picked up from a ramp on the track actuated by the same current which moves the semaphore signals. A clear signal is given if the train connects with one portion of the ramp, and danger is shown if it strikes another.

In the engine there is a valve kept closed by an electromagnet on a local circuit normally closed. The circuit passes through the lower portion of the locomotive, where there is a switch held in position by a lever which reaches down low enough to strike the ramp as it passes. As it strikes it lifts, breaking the circuit; and, if there is danger, permitting the whistle to blow, and sending the miniature semaphore to horizontal.

If the ramp indicates that the track is clear, another current is sent through the circuit, ringing the bell and moving the miniature semaphore to clear, the whistle being kept from blowing at the same time by one of the electromagnets which holds the valve down when the current is passing. The ramp and the trip which is connected with the automatic stop are kept free from ice in winter by artificial heating.

Worked Without a Hitch.

The problem of keeping the automatic stop free from ice, its greatest disadvantage, has been successfully solved by the use of steam-heat. This was found necessary in the use of the ramp, and the two have been economically worked together. During the great blizzard in the spring of 1908, when England was snow-bound and the semaphore-poles were frozen solid, the ramp and the automatic stop, where they were in use, worked without a hitch. The steam-heat kept them free of snow and ice.

Both cab signaling and the automatic stop have proved so reliable on the Great Western Railway that the Board of Trade, the most conservative railroad body in the world, has given permission

to dismantle the semaphores over a distance of several miles.

Coincident with the development of signaling, there has been steady progress in the hardly less important matter of switching.

The Magic Interlocking.

The concentration of switch levers in one cabin was found convenient as early as 1846. It was immediately obvious that it was almost impossible not to make a mistake now and then, and throw the wrong switch; but each mistake meant a wreck, or an engine in the ditch.

There was no help for it, however, until Saxby and Farmer invented the interlocking method, which is in use in all its essentials to-day. By this device each lever is connected to a slot occupied by small blocks, or "dogs" with pointed noses, capable of slipping into grooves cut into a rod—the tappet bar—running vertically in the machine.

When a set of switches are to be thrown, the first movement of the lever is to lift the rod, which catches the noses of all the "dogs" representing switches involved in the movement. By the mechanical arrangement of the "dogs," one that would cause an open switch or otherwise break the track cannot be slipped into a groove, but will rest with its nose against the grooveless portion of the tappet bar.

If the leverman by mistake grasps the wrong handle, he finds it does not work; thus all danger is averted. If any of the switches necessary to form a certain clear track are in use, that fact also shows itself by the lever refusing to work.

While the making of a switch is in progress, all the other switches are immovable; but the moment it is made and locked, those not conflicting are released, and can be used for other purposes.

On the earlier machines, those which are worked by "Johnny Armstrong" power, the pulling of the lever turns a pipe which parallels the track to the point of the switch. Two levers are necessary—one to unlock the switch, which is normally held rigid by a plunger, and the other to move the switch itself.

The English Board of Trade has limited the distance a switch can be located

from a manual plant to 540 feet, but even at that distance it takes beef to bring over the levers.

Motive power for switching purposes was introduced in 1860. The first was hydraulic pressure, a piston acting on a combination of salt and water, a leaky machine which did not always do its duty. There were other faults to the interlocking machines at that time.

There was no way of preventing a switch from being thrown under a train and making it do the splits. This was effectively stopped by the detector-bar, which was invented in 1870.

The detector-bar is a long strip of iron paralleling the rail at a switch, and connected with the switching apparatus so that it rises an-inch above the rail during the process of throwing the switch. While a train is passing it is impossible to raise the detector-bar and throw the switch.

It was not until 1874, twenty years after the discovery of interlocking, that it was introduced into America. The machinery was made in England, and installed in this country by English mechanics who were brought over for the purpose. It was set up on the Pennsylvania Railroad at East Newark, and its advantages were so obvious that its use spread rapidly, especially at grade-crossings and terminals.

The Electropneumatic.

Hydraulic pressure as a motive-power was superseded by the invention of the low-pressure pneumatic machines in 1876, the first of which was placed in operation at the north end of the "Y" entering the tracks to the Centennial Exposition.

Four years later the high-pressure electropneumatic machine took its place, and it is used successfully in many large terminals to-day. Electricity is used to operate the valves, and compressed air does the work which used to fall to the leverman in the tower. The machinery is different, but the method is the same, the air first unlocking the switch, then throwing and locking it again.

The introduction of the pneumatic machine greatly facilitated the handling of traffic at terminals, as it can operate over any distance, and there is nothing to wear

out. The use of electricity to the exclusion of the pneumatic system, as invented by Taylor in 1891, has created a rivalry between the manufacturers of the two kinds of plants, and the result has been increased efficiency on the part of both.

The electropneumatic is used in the largest single switching tower in the world, in the yards of the Glasgow Central depot, where there are 374 levers; but the new tower in the Grand Central Station, New York, which will have 700 levers, will be operated by the all-electric.

Wonderful Combinations.

In the interlocking plant there is a close relation between switching and signaling, and it is not possible to complete the switch until the signal-lever has been pulled.

If a towerman had to remember, each time he threw a switch, all the other routes it conflicted with, he could not carry the knowledge in his head; but the interlocking plant has a perfect memory. If one of the routes, for instance, passes from one track to another through double slips until it has crossed ten tracks, the interlocking plant will have a signal showing on each of the tracks crossed as soon as there is danger.

It has all been figured out in advance, and the necessary signal-wires have been connected, so that the moment a certain route is opened, every signal on every track affected flies to danger.

The detector-bar is no longer used in modern plants, a track circuit serving the same purpose and occupying no room. As soon as a train enters a switch, it makes a connection in the relay, which locks the lever in the interlocking plant, making it impossible to throw the switch.

The Uses of the "Make and Break."

In the interlocking plant, worked by electricity, as in the automatic signal, it is the making and breaking of circuits by the lifting and falling of armature which does the work. Instead of a lever, there is a handle which pulls out, interlocking the several levers which might conflict, and preventing complications.

During this part of the motion there is no change in the electrical connection or

in the switch. With the second part of the pull on the handle, the brushes which have been connected with contact-slips on one end of a controller pass to the contact-slips on the other end, breaking the circuit and causing a new current, which throws the switch.

When the work is done, if the switch works right, two parts of the machine make a true connection, and it is then possible to give the handle a third pull, which releases the other switches and locks the switch just made.

It takes a long time in the telling, but it happens in a fraction of a second. If the switch is pulled through the first movement, but will go no farther, there is something wrong with it, and a repairman is hurried out to examine. If the switch is occupied, it is altogether locked, and it is impossible to pull the handle through even the first movement.

Nothing has yet been invented to make it possible to throw a whole set of switches with one lever, but lever-men are so adept that they can throw half a dozen switches with a motion that is practically continuous. The most that can be done with one lever is to move both ends of a double-slip switch with movable points.

The whole problem of a modern switching plant must be solved in advance by the engineer who lays out the plans on paper. There is in it a very complicated problem, and the combinations are gone over by half a dozen experts before work is commenced. There are sometimes hundreds of different routes within a plant, and there must be a complete set of wires for each, so that all conflicting switches will be locked, and the signals on all conflicting tracks show at danger when any one route is open.

The engineers have reduced the towerman's duties steadily in this direction. They are now so carefully mapped out that a greenhorn could go into a tower and operate the plant. He would be slow, but he could not make a mistake.

If he pulled the wrong lever, he would find it locked. If he tried to give a wrong signal, it would not work. If he attempted to throw a switch under a train, it would be impossible.

At his back there would be a chart telling what levers to pull to open a certain route. In a frame in front of him he would see an illuminated map of the track, showing the position of each of the moving trains.

In the main tower in the Grand Central Station in New York, a buzzer rings whenever a train enters the terminal at Fifty-Sixth Street. After that, its movements are shown on the illuminated map.

The short-circuiting of the automatic signals by the train as it enters each block is represented in miniature on the map by the extinguishing of the tiny electric bulb behind the glass. As it passes to the next block it, in turn, becomes dark, and the block out of which it has passed shows a light again.

As it is impossible to see the trains themselves more than half the time, the electric map is invaluable. It keeps the towerman accurately informed all the time, and saves him from attempting to open a route before a train has altogether cleared a conflicting switch. As the trains pass in and out of the station, their shadows appear to be crossing the map.

Levermen in practise never refer to the chart. It becomes second nature for them to throw the right switches for any given combination, but they constantly watch the illuminated map, as if they were looking out of the window at the actual trains.

When the terminal at the Grand Central Station is completed, and the towers are combined in one, the movements of all the trains within the terminal will show on one large illuminated map. The tower itself will be remote from the track, and could well be half a mile away. The towermen will be guided solely by the indications on the map.

A frown is poor fuel on a long run, a grouch is a steep grade to pull up, and a hot temper never made water boil.

—The Philosophic Fireman.

A HEART OF THE NORTH.

BY GEORGE VAN SCHAICK.

Pierre Hears the Indian Girl's Story and Takes Her Away From Harm.

SYNOPSIS OF PREVIOUS CHAPTERS.

PIERRE, a young French-Canadian with Indian blood in his veins, while hunting and trapping in the Canadian woods rescues Anne Marie, a young Indian girl, and her old father, whose canoe has been upset and demolished by a moose. Father and daughter are badly injured. Pierre takes them to his tent and cares for them, but the old Indian is so seriously hurt that he dies, and Pierre is left with the girl on his hands. A half-breed and an Indian appear at the camp. It turns out that this half-breed, Simon, who was the husband of Anne Marie's sister, but who, through his brutality, has killed his wife, is in love with the girl, and tries to make Pierre give her up.

CHAPTER III (*Continued*).

Anne Marie Tells Her Story.

PIERRE sat down at the entrance of the tent and began cutting tobacco for his pipe.

"They call him the Grand Simon," said the girl. "He is also called Kuick-wa-tiao, the Carcajou; and that name makes him furious, because the carcajou is a foul beast. But it is a good name for him.

"He was the husband of my sister, and she is dead. They were married five years ago at Lac St. Jean, at the little church of the Oblate Fathers, you know, in the *Réserve*. She was a fine, strong girl, and had taken many trips to the woods with my father. We warned her against him, for no one likes him; and sometimes he drinks hard.

"But she had the madness of love, and they went away together for the winter's trapping. They traveled back with their pelts and reached Pointe Bleue for the new year, and she was very weary, but made no complaint; and soon they started again, with big loads of provisions, and she was carrying more than she ought.

"He was very rough with her, but we

women of the sávages are used to hardship. Then, after the breaking up of the ice in the spring, they returned with their canoe, and my sister had a little girl in her arms, born in the woods one day when he was away looking after his traps.

"She was all alone and saw no one for two days, until he came back. Well, she had carried the baby and a good load of pelts, and had done her share with the paddle and the pole, and was very weak. We thought she had the disease of the chest. You know, the one that kills so many.

"But she got better. Simon had no house at Pointe Bleue; only a tent, and she lived there during the summer while he went away. He had sold his pelts well, and was gone most of the time, guiding gentlemen at the clubs. But he often got drunk, and sometimes was very bad when he returned.

"That was their life for two years, during which the baby died. It had never been strong, and the doctor at the *Réserve* said that it was because my sister was not well; and the baby had never been well nourished. It made her very unhappy. They trapped in winter, and Simon worked somewhere near Lac St. Jean during the summer; and most of the time he was drinking too much.

Began in the April Railroad Man's Magazine. Single Copies, 10 cents.

"Yes, there is a great fine for selling liquor to the Indians on the reservation; but when a man will drink, and pays anything they ask, he can often get it, for there are always some who will run risks.

"Then my brother Elias was grown up and wanted to go trapping; and my father, who had not gone for several years, thought he would like to try it again, and felt sure he could stand it; but we had little money, and Simon advanced enough for our provisions and traps.

"So we started off, all together, with three canoes, and big loads, and I was glad to be with my sister; and she was happy, too. We traveled more than a month to get to Grand Lac Manouan, and beyond it, where Simon had his camp and his cache.

"So, we all camped near one another; and it was then we found out how bad Simon was to my sister, for she had never told. He was quarrelsome and always made her work harder than she ought, and he would tell us to go away if we did not like it.

"My sister then had another little baby; but she had to work like a strong man, skinning and cutting wood, setting snares for rabbits, and doing the cooking—and Simon was grumbling and quarreling all the time. The little one was ill and cried much, like a white baby, and Simon would swear at it.

"The trapping was not very good. There were no beaver, and the mink were scarce; and there were but few *loup-cerviers* and otters. My father and brother worked hard, all on one side of a river, while Simon had his lines on the other side. They did better than he, and he was angry about that. It was a life of scolding.

"Then came the day when he had brought a good otter-skin, and it was frozen and had to be thawed out a little before scraping and stretching. She was working at it when the baby cried. It must have been in pain, so she went in the tent and looked after it, leaving the skin on the ground; and a gust of wind blew sparks and hot ashes over the pelt and damaged it.

"While she was looking at it he came in. She told him how it happened. He swore at her and the child, and struck

her. The baby was in her arms, and the blow made her fall. In some way the little one was hurt, for in a day more it was dead.

"My sister was very strange after that. She never spoke at all, and her head was always bent very low. When we spoke to her she did not answer, and never cried; but looked as if some great sickness had hold of her, and we did not see her eat.

"Then one day, when Simon had been gone two days and she was resting in the tent, my old father went to her with some meat, and found that she did not move—for she was dead.

"When Simon returned next day and was told, he said she had ever been a weak and sickly thing. He helped us bury her, and went back to his trapping.

"Yes, sir. He paid no more heed to her than if she had been a dead dog. But he began to come always to our tent, and it was not more than a couple of weeks before he made love to me."

Pierre said something strong just then, and the girl continued. It seemed to do her good to speak of all these things that had made her heart sore and angry so long. She appreciated the sympathy expressed in the young man's looks.

"Yes, sir, to me, her sister, with her poor body and that of the little one lying frozen a foot or two under the earth near by, where they would not begin to thaw and pass away for many, many months to come.

"I was angry and reproached him; and my brother told him to leave me alone, and they quarreled. Once I threatened him with an ax, and I think I would have killed him if my poor old father had not come between us; but the Carcajou, he went away laughing.

"You know how it is when misfortunes come; they do not cease for a long time. Elias, my brother, went away for two days to attend to a line of traps, and did not return. We went in search of him. There had been no new snow since he left, and we followed him easily and found him dead beside a dead bear.

"The beast had been caught in the trap and had carried it away far, and Elias had followed him. He was a big bear, and the drag-log had not hindered him much. But it was caught under

some fallen logs when my brother reached him, and he had gone very near to shoot. The bear was badly wounded, yet had made a leap that had broken the drag-log away from where it was entangled, and he had caught Elias.

"Yes, sir, it was a terrible time. My father became weaker on account of his age and the misfortune. He could do little at the trapping; and Simon was forever scolding because he had lent money for the outfit, and feared he would not get it back.

"He said he would forgive the debt if I would marry him, but I would not.

"When spring came we all started back, leaving the little dead baby and the brother and sister, all together, under some big hemlocks. When we reached a place two days' journey above the forks in the Manouan River, my father was taken ill. But Kuick-wa-tiao would not wait, and said we were to follow. That sickness lasted long; it was a pain and a swelling of the legs, and we remained all summer."

"How did you live?" asked Pierre.

"I caught fish and rabbits, but we had no more tea. Last month, when my father was well, we got down to the forks, and I said we would go a few days' journey up the Shipshaw.

"Then I thought, after a couple of weeks, that Simon would have gone up the Manouan on his return journey, and that we would go down the river and not meet him. But he guessed what we had done, for he is here."

The girl stopped, exhausted by her long tale, which she had told hurriedly and excitedly. Pierre looked at her pityingly, in thorough understanding of the little drama enacted in the wilderness.

"You poor girl!" he said. "You have been through purgatory, haven't you? Just tell me what you want me to do, and I'll help you to the best of my ability."

Just then he saw the Indian, who came along the portage, staggering under a huge load. He was soon followed by Simon, whose great bulk was bending under the weight of several big *poches*.

After discharging their burdens, they came up to the tent and asked how the old man was. The half-breed peered in and shook his head.

After lighting his pipe, Simon looked at Pierre for a moment, scratching his head uncertainly. Finally he spoke:

"He will not live—he is done for. You cannot do anything to save him."

"I'm afraid not," answered Pierre.

"Well, then, there is no need of your staying longer. We can remain here and take care of him as long as he lives, and, afterward, I will look after the girl."

Pierre did not answer. He was whittling a stick with his knife, and carefully considered his work. Finally he said slowly, "Well!"

"Well, there is nothing to prevent you from going on with your journey, and you can start as soon as you like."

"All right," answered the young man. With this non-committal remark, he resumed the shaving of his bit of spruce, sitting peacefully upon a log. Simon cast evil looks at him, and finally rose and went down to the river, where the Indian had lighted a little fire of chips and birch-bark.

In a few moments the two were busy, boiling their spruce-gum and seal-oil in a little pot, and mending a crack in their canoe at a place that had come in contact with the sharp edge of a boulder. Simon smeared the gum on the crack, smoothing it over with his wetted thumb, and, suspicious of another place, applied his lips to it and sucked hard. But his cheeks remained collapsed—no air was coming through.

"The 'ousch' is tight now," he said.

The Indian grunted assentingly, carefully folding up a bit of cotton cloth from which he had taken the small strip that had been pasted over the crack with the gum.

"Big fellow," he said, "the *monsieur*."

"I'll break his neck," snarled Simon, upon which the Indian shrugged his shoulders.

Pierre went into the tent again for another look at his patient. Anne Marie, weary and ill, had closed her eyes for a moment, and was asleep. Looking at the old man lying there quietly, he observed a strange fixity in his gaze. Bending over him and taking his hand within his own, the young man found that it was very cold. Another glance revealed the truth. Silently, without stirring, gently as in a long, deep slumber, the end had come.

Just then Anne Marie opened her eyes. Something in Pierre's face told her the truth, but she made no outcry. Raising herself to her knees, with great tears coursing down her cheeks, her lips moved without a sound.

She was taking this blow as she had borne others—bravely and quietly, with the capacity for long-suffering of her race, with the courage of a strong nature, and with the real, deep sorrow of a loving woman.

Simon and his companion, coming up, found the two kneeling down in the tent. They took off their caps and knelt also, praying silently, mechanically, impressed for the moment, but, like children, ready to quickly forget.

In a few minutes they arose and began to search under the trees for a spot fairly free from rocks. With sharpened poles they pulled away the mossy carpet and dug up the earth, throwing out the heavy, black mold and the stones with their hands, until finally, sweating with their hard toil, they decided that the grave was deep enough, and returned to the tent for the body.

"That is your coat," said Simon to Pierre.

"Yes," answered Pierre.

"I will take it off," said the half-breed.

"No; leave it alone," ordered Pierre.

Simon shrugged his shoulders, and the three men took up their burden, lifting it carefully, while the girl arose painfully and slowly followed them.

Pierre had carpeted the grave with furboughs, and Anne Marie noticed it. The old man was lowered into his last home with the long tump-lines, and Simon was about to begin pushing the earth back into the cavity, when Pierre asked him to wait.

With his knife he ripped off some strips of birch-bark from a tree near by, and covered the grizzled old face, while the girl looked at him gratefully. The earth was then pushed back, and a rough cross made of two sticks was planted at the head.

Pierre replaced the strips of moss with the tiny leaves of wintergreen and wood-sorrel peeping out of the velvety covering, until there was left but a rough spot that would soon again be level with the soil of the forest, and a little perishable cross,

to mark the coming and the passing of a poor old savage.

"Maskoush, get the book," ordered Simon.

From the depths of one of the packs Maskoush—or Little Bear, the Indian—brought out a prayer-book and handed it to Simon, who quietly, as if accomplishing some strange rite in which the mumbling of unintelligible sentences was the chief function, read the Latin words. He went on and on, hardly stopping for breath.

He scattered a handful of earth over the grave, in the form of a cross, and Maskoush said "*Requiescat in pace*," after which the two men lighted their pipes as if nothing unusual had happened.

Pierre considered his three companions. Simon, the half-breed, was evil with the bad traits of two races, while Little Bear had been, in some sort, tamed by the white men who had brought the sheet-iron stoves, the axes of steel, the tea, and the wheat.

Yet, both were brutish—fit descendants of a people that had made its womankind beasts of burden. They carried with them a prayer-book in a dead tongue they did not understand. It was a fetish. It would take generations for them to understand its spirit.

But the girl, Ou-memeou, christened Anne Marie, seemed of a different sort. There was nothing in her of the broken-spirited chewers of men's frozen moccasins. She had done up her hair in two long plaits that hung down her back, and her forehead showed intelligence. Her eyes were beautiful, calm at times, yet capable of showing passion. Her racial characteristics were marked, but the fine oval of her face made her a thing of grace and loveliness. It was difficult to tell how great an influence her religion might have upon her mind, yet Pierre knew that, such as it was; it must be with her a thing of the heart—a sweetening and softening power for good.

She was sitting on a near-by rock. No more tears were coursing down her face. Her thoughts were not very complex, yet she realized that an important part in the drama of her life was ended. But the struggle—the never-ending contest of those who battle with the wild—was still going on—and it seemed like a natural

thing, since her brief life had been spent in a region that insists upon a constant fight for existence, and in which hunger and cold are the paramount enemies.

The men who stood about her were silent—thinking of a contest to come. Hatred and jealousy were in Simon's heart, while contempt and the feeling of enmity developed in men toward ill-favored and dangerous beasts swayed Pierre.

The Indian alone was indifferent. He had gone on this trip with Simon because the latter was a successful trapper, and because he knew he would return with a goodly minor share in the spoils of the voyage. But the love-affairs of others were nothing to him but a hindrance—a thing interfering with the pursuit of pelts.

If needed, he would take his partner's side, of course. He scented trouble, and disliked it. The season was late, and it was high time they were on the trapping-grounds.

He could not understand why Simon and Pierre should want to quarrel about the girl. She was very poor; she had nothing. He was looking forward to marrying another girl, for whom he would have to give guns and blankets, but whose "well-off" father would soon be leaving behind him a small house on the reservation, with a pony and a cow, two tents, and a lot of traps.

A certain respect for the near presence of the dead, for the last words the girl had uttered, kept the men silent. They could still hear her anguished voice. They felt subdued by her presence; for, while she was the cause of contention, she was hurt and sorrowing, and even the gross nature of the Carcajou was for the time being kept in bounds by her grief.

Thus the men held in leash passions that might at any moment break forth in riot. So still did they all keep that when the Indian finally tapped his pipe against the trunk of a birch, and began stolidly to scrape the bowl with his knife, all heads turned toward him expectantly, as if this breaking of the silence portended something. Yet, no one spoke for many minutes, until the half-breed finally began impatiently.

"Let us go back to the tent," he said. "It is time to eat."

He went to the girl, and took her gently by the arm. She shook herself free, and walked alone, slowly, with much pain and difficulty, her nether lip pressed by her white upper teeth. The men followed in silence. The Indian was evidently quite unconcerned, but the others were both under tension and ready for trouble when it should come.

They reached the tent, and Anne Marie sank down upon the fir-boughs with a groan, placing her hand upon her injured side with a movement that had become usual to her. Pierre was concerned to see her looking so distressingly ill.

The silence was again broken by Simon, who was crouching by the fire, holding a spiderful of slices of fat pork over the flames.

"You are a doctor?" he asked Pierre.

"I know something of medicine," answered the latter.

"How long before she will be able to travel?"

"I do not know—perhaps many days," Pierre replied guardedly. He was looking in the tent, and saw that the girl listened eagerly to their conversation.

There was a tense appearance in her face—such as he had seen on the countenances of men approaching big game, or going out upon a log jam, or making ready to battle in the ring.

Simon's lips worked as he sought to restrain the anger that was possessing him.

"Many days, *maudit!*" he exclaimed. "Never. You take her for one of your fine ladies, perhaps. She is Anne Marie, a savage like ourselves, isn't she, Maskoush?" and he turned for confirmation to the Indian standing beside him. "She will be all right in a day or two. She can travel. I will not make her carry. She need not touch a paddle. Do you think I can waste my time here? I must go north, and she goes with me!"

By this time the fat pork was burning in the spider, but the half-breed did not notice it.

"I suppose that is for her to say," answered the young man calmly.

"It is what she is going to do," snarled Simon. "Her father is dead now, and her brother, too, and I am going to look after her."

Pierre noticed that the girl put one finger to her lips and nodded affirmatively. He understood at once that he was to interpose no objection.

"Oh, well—it is nothing to me," he answered.

With that word the dark cloud of anger that had been gathering was dispersed. Simon's countenance assumed a less unpleasant expression, and he went to work to fry more pork, while Maskoush was making the tea.

They all had something to eat, after which Simon went in search of a suitable young spruce. The blows of his ax rang near by, and he soon returned with a straight trunk, which he had already divested of its branches.

This was split into a couple of rough planks, which were trimmed with the ax, after which he set to work to make a paddle to replace one that was split. In the meantime the Indian took off one of his high moccasins and began to cobble it with an awl and a piece of waxed thread.

All was peace for the time being.

A short way above the camp a good-sized brook fell in the river, and Pierre, wandering there, noticed that fish were rising in the pool above. He returned to the camp and put up one of his rods, and picked out some flies, and was about to start, when the girl moaned. He leaned the rod against the tent and entered.

"What is the matter?" he asked. "Is the pain very bad?"

"They must think it is very bad," she answered. "I am not strong enough to travel yet. Are they near?"

"No; they are down by the canoes."

"Well, let them believe I am very ill. It is bad enough, anyway. But I must think—oh, I must think very hard."

"I must think, too," said Pierre.

"Do not stay here with me," said Anne Marie; "the less you are here the better."

Pierre recognized the wisdom of this request. There was no advantage in arousing Simon's ready anger and jealousy any more than could be helped.

"All right. I'll go and catch some fish if I can," he replied. "If you think of any plan, let me know what it is, and I'll do all I can for you."

He nodded to the girl in a friendly way and took his rod. His way led him near the place where the two men were at work.

They looked at him somewhat curiously as he passed by them.

"I think there are some trout in that brook," he said. "I'm going to try."

The Indian grunted something to the effect that he believed there were some little ones there, but Simon shrugged his shoulders. Without meaning to, Pierre had given the half-breed a favorable impression. He was a gentleman, and only cared for his sport. He was going to catch trout with that foolish little shiny yellow rod. He had done what he could for the girl and her old father, and now only thought of fish.

He had not come into the woods all alone, like a stupid, venturesome tenderfoot, to get into a fight about a girl.

He probably thought it his duty to stay another day or two until Anne Marie should be better, and then would go on his way as soon as he understood that it would be safer and healthier for him to do so.

Simon, conscious of his own bulging muscles and limited intellect, overrated his ability to deal with the situation. He hardly considered the girl as of any importance in the crossing of his will. Women were the prey of men, like the beavers and the *loup-cerviers*, and belonged to the strongest, who, by right of their thews and sinews, were entitled to the kisses of the first and the pelts of the others.

Accustomed as he was to lifting huge loads, he did not realize the springs of steel that were hidden in the long, lithe arms of Pierre, who, after all, handled an ax in a way to make a real woodsman laugh.

The young man had reached the pool, and began casting a brown hackle and a Montreal over its riffled water. At the second or third attempt he got a rise, and soon landed a small trout. In a few minutes more he got a second and a third one.

A few more casts were fruitless, and he pulled out some more line to reach an eddy just back of a large rock that rose out of the water at the head of the pool. As the hackle descended gently upon the surface, there was a boiling of the water, a glimpse of a broad back, a reddish and silvery flash, and then the music of the reel.

This was no quarter-pounder such as

he had just landed. In a moment the joy of a big fight was on him! Everything else in the world was forgotten! There was the rapid cutting of the water by the tense line, and the tugs that make the heart beat lest the tackle should prove weak or the fish be poorly hooked!

Down in the deepest part of the pool and up again, along the sides where he sought to entangle the line upon broken, sunken branches, across and back, the game old trout carried on the contest. Then Pierre realized that he had no landing net. There was no sandy place where he might lead the fish into shallow water. He must have the net or lose the big fellow, and shouted lustily.

Simon came running down, and Pierre asked him to go up to his tent and bring the landing net. Simon hastened off and soon returned with it, taking a seat upon the bank and watching the contest.

The big trout was done for. Several times it half turned upon its side, and Pierre then managed to reel him in close to the bank, where, with a triumphant whoop, the half-breed scooped him up in the net neatly and cleverly.

"It is a fine trout!" he said, grinning.

Pierre, much pleased with the world in general, answered pleasantly, and the two returned to the tent as if they had been friends all their lives.

The little spring-scale said four pounds and a half, and Simon turned the fish over to Maskoush, who went down by the river to clean it.

Pierre entered the tent. He had held up the fish in order to show it to the girl, and she smiled.

"That is right—be friends," she said. "He must not suspect."

Pierre's spirits fell. He had really quite forgotten for the time being that there was any trouble in the camp.

"Have you thought of anything?" he whispered. Anne Marie shook her head.

"Not yet," she replied. "It is very hard."

ing, smoking, cleaning his gun and talking to the Indian or to Simon, who overhauled, mended, patched, cooked, and played cards with a greasy pack, as if time had been of not the slightest consequence.

On the third day, it rained fitfully, and fallen leaves began to fly over the river. There was nothing to do, and their inaction made the men restless. They were all gathered in the large tent, where Anne Marie was lying down, apparently as ill as ever.

"Isn't she ever going to get well?" Simon asked the young man discontentedly, as if resenting the fact that he was unable to cure her more quickly.

"There are broken ribs," answered the latter. "You know as well as I do that broken bones do not mend quickly."

"And are you going to stay here until they are mended?"

"Well," answered Pierre, "I ought to think about making a start pretty soon."

"We are losing time," growled Simon. "The cold weather will soon come. We have a long way to go."

There was an interval of silence and then the half-breed spoke again, in a temper, as if his restrained anger was finding a sudden outlet.

"I shall make a start to-morrow."

"Anne Marie cannot travel yet," replied Pierre.

"She can travel! If it had not been for your putting such foolish ideas into her head she would already have started. I have told you she would do no work. Maskoush and I will do all the carrying, all the cutting wood, all the cooking, all the paddling. I have fourteen hundred pounds of provisions. We have to go three times over every portage, four times over the hard ones—"

"Simon," interrupted the girl, "I shall not start to-morrow; I am not well enough. The day after I will start, if you will promise to take me to Antoine Garaud's camp on the *Rivière à la Louvre*."

Antoine Garaud's wife was related to the girl, and their camp was not over forty miles from Simon's place near Grand Lac Manouan. This plan did not suit Simon very well, but promises were easy to make.

"You can begin to make your packs,

CHAPTER IV.

Shooting Many Rapids.

FOR the next two days they passed the time as best they could, the girl remaining in the tent, Pierre fish-

monsieur," said the girl, turning to Pierre. "You have been very kind. I suppose you will leave to-morrow."

"Yes, of course," he replied, unhesitatingly, yet not knowing in the least how the tide was running. "I'll pack up to-morrow after breakfast."

Simon looked much pleased, and after a few minutes went out with the Indian, not heeding the rain, and walked down to where his canoe was turned over on the sand at the landing-place.

"I don't quite understand what you're driving at," said Pierre, as soon as the other two were out of hearing.

The girl looked at him for a few minutes before answering.

"I can take a gun and kill him, but we *sauvages* of the Pointe Bleue are Christians now. If you and I should run away they would pursue us. We can only go down the river, and with you alone to paddle they would catch us at the first portage. You would have to carry all your stuff and they would only take enough for two or three days. Then there would be a fight.

"If you were killed, or hurt, I should have to go with them. You were very strong and brave when you pulled me out of the water, but you ought to have let me go over the falls. If we tried to go, in the night, they would surely hear us. If they did not, they would be after us at daylight.

"If he keeps his promise to take me to Antoine all will be well, but if he does not I have a good knife. Perhaps God might forgive my own blood, having seen how much I have suffered."

"I wish I could help you," exclaimed the young man. "Surely there must be a way."

He was getting more and more excited and continued:

"He's a big chap; but one man with a gun is as good as another, and my gun is a lot better than his."

"There is no bad gun at close range," said the girl quietly.

"No, of course not; but it seems to me that if you had told him you wouldn't go, and if I had told him to go to the deuce, he might have made up his mind to keep quiet. As to a fight, I don't think I'm afraid of him, big as he is."

"You are not afraid?" asked the girl,

with a strange light in her eyes. "He is so big and strong!"

"I don't think I am, Anne Marie," he answered simply.

She rose to her feet quickly, not minding the pain that stabbed her chest.

"Go down to the landing quietly, and smoke your pipe, and talk to them. I will come soon. Perhaps there will be a fight."

He went down to the strand where Simon and Maskoush were investigating a leaky flour-bag and carefully sewing it up, having made a shelter by tilting up one side of the overturned canoe and sticking a paddle under it, so that the precious flour should not get wet.

He leaned against a tree, cutting tobacco, and began idly to ask questions about the value of mink and marten pelts, an absorbing topic which immediately brought about much discussion.

In the meanwhile, Anne Marie had quickly raised the wall at the back of her tent, and not without hurting her side a good deal, managed to get at one of the pegs and pull it out.

Then she crawled out and quickly made her way to Simon's tent, having seen that its entrance was concealed by trees and rocks from the place where he now was on the shore.

There were two guns in the tent, a double-barreled muzzle-loader and an old single-barreled Hudson Bay Company .28-gage.

She took out the ramrod of the double gun—one end had a double screw for pulling out wadding—and in a few minutes she had drawn out the charges from both guns. She left the caps in position.

In case of a fight a good deal was gained. She returned stealthily to her tent, after replacing the ramrod and carefully putting the guns back where she had found them. She then knelt down and prayed, kissing a little brass medal that hung from her neck.

When she rose she hesitated for a moment, putting her hand this time not upon the wounded side, but upon the place where her heart was throbbing. Then she slowly made her way to where the three men were talking and working.

"Ah, you can walk now!" exclaimed Simon. "That is right. In a few days you will be as well as ever."

"Yes," answered Anne Marie quietly. "I can walk, but it still hurts much."

"Never mind," replied the half-breed cheerfully; "by to-morrow you will be better still, and we will make an early start."

"An early start, yes," she assented, "but before I go there is something to be done over at the grave. I want you to come there, and you, Maskoush, and you, *monsieur*, if you will be so kind."

Pierre came toward her with well-simulated indifference, but wondering what her plan was. Simon rose from his seat under the canoe quickly, and was followed in a more leisurely manner by the Indian.

"What is the matter?" asked the half-breed curiously, and casting suspicious looks upon the girl.

"Come with me," was all she answered as she started toward the little moss-covered mound, only a few yards distant from the tents.

"She wants us all to pray," said Simon to the Indian; "it is but right."

When they reached the grave the girl stopped and leaned against the trunk of the big birch that had begun to scatter its leaves upon the remains of her old father. There was an expression of pain and sadness on her face, and with the back of her hand she wiped a tear from her bronzed cheek.

"I am to say good-by to the last of my own people," she began. "I have no one left but the wife of my father's older brother, the one who was caught in his nets on Lac St. Jean the day of the great storm two years ago. There is Antoine's wife also, only a cousin of my mother. Now I am willing to go with you, Simon, because you promise to take me to Antoine. He will be glad of my help around his camp. You have promised."

"Yes, of course, certainly I have promised," he answered, scratching his head, and avoiding the keen glance the girl was directing toward him.

"You have promised," continued the girl. "But promises are forgotten. I am afraid of you, Simon. You have broken promises to others. But I will go."

"You say that you are the proper person to take care of me now that my father is dead. My sister's husband should certainly have been the one to protect

me. I will go, Simon, but I think the poor old dead man there, at our feet, would not have liked to see me go with you. But I am willing, for there is nothing else to do.

"Now you, Maskoush, and you, *monsieur*, have heard the promise, but it is not enough to keep the dead man's spirit at rest. You will put your hand, Simon, here over the grave, and upon the dead man you will swear to do me no harm and to take me to Antoine Garaud, on the *Rivière à la Loutre*, and to leave me there."

There was an impressive silence after the girl had spoken. A dark-red flush broke out upon the half-breed's cheeks. His left fist was clenching and opening, his right was edging around to his back, where the sheath-knife hung from the folded sash around his waist.

In another moment he had broken out in a rage.

"What is that?" he shouted. "I am a liar! am I? A man whose promises are no good! I am to swear, eh? What are you trying to do?"

"I suppose you brought the *monsieur* to hear this, to make him laugh at me! I have promised, that is enough. I will take you, and if you refuse to come I will make you!"

"I will tie you, and put you in the canoe like a *poche*, and the *monsieur*, if he does not like it, I will slap his face, *maudit*! Yes, I will, and send him crying to his mother. Who do you take me for to laugh at me! at me!—yes!—me! Simon Carcajou!"

The man's voice shook with rage, yet a vestige of respect for the dead man buried at his feet kept him slightly under control. He was a handsome, big brute in his fury, and, angered as Pierre felt at the insult, he kept quiet, observing him with a certain strange interest, such as he had experienced in the presence of maddened animals.

A raging bull, a moose stag, or a bear crazed by the torture of a steel trap, is no more faithful picture of fierce anger than was that shown by the distorted features of the half-breed.

"So you dare not swear?" asked the girl slowly.

"I dare everything now!" he retorted furiously. "I shall take you with me!"

We are far from where men live, no one shall stop me! And as for you, *monsieur*, I give you half an hour to pack up your things and go!"

"This thing has gone on far enough," replied Pierre. "You have heard what the girl said. She will have her own will. If you refuse to swear, she goes with me."

"With you, *maudit!*" he shrieked. "You have been telling her fine tales; I swear! You want her for yourself, do you? She is no woman for a *monsieur*; she is one of us and stays with us, and I'll not allow you to make a plaything of her and to taunt me here, in the forest, where I am a man and you a fool! You are a fine *monsieur*, you think, and have only to look at our women to seduce them."

"You're a scoundrel!" shouted Pierre.

Like a flash, Simon's hand went back to his hip for his sheath-knife, but with lightning speed the young man advanced and his long sinewy arm shot out.

The fist crashed mightily against the half-breed's jaw. The man took a step backward, dazed, for he knew nothing of this sort of fighting, and his hands slowly dropped.

Another thunderbolt seemed to strike him as Pierre swung fiercely under his left ear, and the big fellow's knees gave way beneath his weight.

Limp, collapsed, he sank down, an inert mass, felled like a bullock, the blood all gone from his face, a pitiful hulk of broken humanity. And again Pierre, his anger all gone, looked down upon him curiously, as one looks upon the charging moose that has been stopped by a bullet.

It had all happened so quickly that the other two had not moved, but suddenly Anne Marie's hand shot out behind the Indian, and when she pulled it back she had his knife.

"Take care, Maskoush," she cried, and the man knew that though she was wounded she was a wounded panther, lithe, quick, strong—a fierce thing in a fight.

"It is nothing to me," he said. "It is not my quarrel. I want to take no woman to the winter camp. The *monsieur* he is a magician, an *anamakqui*, his fist is like the horn of *mooswa*, the moose.

"Simon thought to find *wapoose*, the rabbit, and he has met *maheigan*, the wolf. Now do him no further harm and I will not move. He will be well soon. You can give me the knife. It is not for you, or for the man with the strong arm. I will harm neither of you, you have my word."

"Not yet; you shall have it when the time comes. We need help now. You, *monsieur*, watch Simon. Do not let him get up. Come with me, Maskoush."

The girl went to the tent with the Indian, and came out with Pierre's rifle and an old tump-line that had belonged to her father. They returned to the grave, near which Simon had been lying. He was now sitting up, still dazed, and glaring stupidly at Pierre.

"Tie him," she said to the young man. "His arms and his feet, so that he may not move. Take this tump-line; it is long enough. Simon, if you move I have the *monsieur's* gun. It shoots many times, quick, and will be for you also, Maskoush, if you do not take care."

The Indian shrugged his shoulders indifferently, and Simon made an effort to get up, but desisted as the rifle went up to the girl's shoulder.

Pierre brought the half-breed's elbows as far back as he could and lashed them securely. The long end of the tump-line was then carried down to the feet, which were well bound by several twists and some half-hitches.

"We will leave you here and take Maskoush with us to help over the portage," said Anne Marie. "Then we will send him back. If you follow us down the river you will find us watching, and the rifle carries far.

"I could kill you now for the things you have done, but I will not. But if you come after us I will say you seek to injure us, and it is war, and the *monsieur* shoots to kill. You have heard."

The half-breed cursed her, but she paid no attention and spoke again:

"Maskoush has to help us, because I will not leave him with you until we are on our way. I will not smash your guns, because you will need them north in the winter's trapping. I will fix your canoe so that you may not use it to-day. *Monsieur*, take the gun and watch them both."

She handed the gun to the young man and went down to where the two canoes had been placed. In a short time she had removed several of the cedar ribs from the larger one, and then she stabbed the birch-bark deeply in a number of places.

It would take some time to repair all this damage, while it would leave the boat as good as ever when mended. The loosened ribs, which she threw in the fire, would take some time to replace.

She came back, panting. Bending down over the canoe had given her pain, but she paid little heed to it.

"Now give me the gun, *monsieur*, and please pack up everything. My big tent you cannot take, nor the big traps. Pack up all the moose meat, and your packs, and all that is yours."

Pierre went to work with a will while the girl rested, sitting on a log with the gun in her hands, watching the Indian and the half-breed. The latter had a full use of his tongue by this time, and cursed his companion.

"Thou will let them go, *maudit*! I'll break thy neck when I get loose. I'm like a fish in a net now, but if I were free like thee, I would leap upon the she-devil and have my knife in her heart, gun or no gun. But she shall pay for it; aye, even if I only catch her after she has got back to Pointe Bleue and made them all laugh at how I was tied up like a swine for killing. Oh, thou shalt pay dear for this."

"I'll take no chances," answered the Indian sulkily. "She has the gun and my knife, and the *monsieur* has picked up thine. I am thy companion for a winter's trapping and for naught else. After they are gone I am with thee, and will do whatever pleases thee.

"Nearly all the traps are thine, and thou hast paid for most of the food. But now I will do whatever they tell me, for they are the strongest. The youth has the strength of a bear, though he is built like a deer."

These words caused the girl to turn her head a little, and she looked curiously upon the young man, as if she had seen him for the first time. His shoulders were broad enough and he was more than middling tall. There was a certain grace about his movements, and the long

limbs moved beneath the narrow hips with a liteness which the men of her ken never showed, accustomed as they were from boyhood to the packing of crushing weights.

It took but a short time to make up all the bundles, and Pierre soon called out that he was ready.

"I can take but a small load," said the girl.

"Take the rifle, that will be more than enough," replied Pierre.

Anne Marie turned to Simon.

"We will see thee again soon," she said.

He did not answer and Pierre took up the canoe.

"Maskoush," ordered the girl, "take a load and walk before me."

The Indian obeyed without a word, and the three soon disappeared along the path over the portage.

As soon as they reached the end they returned for another load, but before departing for the last trip the girl spoke to the half-breed.

"Simon, I could have destroyed the canoe and smashed the guns. But perhaps I may find I was wise to leave thee the means to go quietly up North. I shall watch for thee keenly, and if thou triest to pursue us we will defend our lives. Adieu."

So once more they returned along the carry. Paddy abandoned the long watch he had undertaken by Simon, and ceased the growling he had kept up every time Simon made the slightest motion. He ecstatically sallied forth along the portage in one of his vain hunts for rabbits and squirrels, while the three sturdily marched in silence.

Upon reaching the end, Pierre put the canoe in the water and began to load it, while the girl continued to watch the Indian.

As soon as everything was ready, Pierre held the boat while the girl stepped in.

"The knives," said Maskoush.

"I will throw them," answered the girl.

Pierre pushed off, and when they were a few yards away Anne Marie flung the knives to the Indian who picked them up and, rather to Pierre's surprise, called out, "*Bon voyage!*"

"Wait!" called the young man. Searching through his pockets hastily he found his pipe—a fine brier—and threw it to Maskoush.

"You should have something for carrying," he said.

The Indian caught it deftly and smiled. "*Bon voyage!*" he sang out again.

"Have we everything, Anne Marie?" asked Pierre.

"Everything," she answered, and great tears came in her eyes.

Pierre was surprised, but decided that she was thinking of the brother, sister, and father, whose bodies were scattered under the black soil of the great forest along the way from Grand Lac Manitouan.

They had expected to see the Indian running back swiftly to free his companion, but he stood looking at them until they disappeared in a bend of the river, and then returned leisurely along the path.

"He's a rather decent chap, isn't he?" remarked the young man.

"Maskoush is a good man. Last year he was fined for hunting in the park, and he had to sell everything to pay the fine. Simon wanted a companion and has advanced some of the money. But if Simon has any whisky he will make him do anything, I fear."

The girl had quickly dried her tears. The way down-stream was easy, with a fair current, and the canoe traveled swiftly. Anne Marie had taken a paddle, and was working away quietly, but suddenly she turned around, looking very pale.

"I cannot; it hurts too much."

"Put down that paddle," he answered quickly. "I should not have allowed you to try it. Turn around and keep a sharp lookout behind us."

"There is no danger to-day," she replied.

But while he steadied the canoe for a moment, she turned around, facing him, and sat down apparently exhausted, one of her hands resting upon the dog sitting contentedly by her.

"Will they try to catch us?" asked Pierre.

"I don't know," she replied. "It may depend on the drink. I should have

hunted through their packs and broken the bottles. But, then, that would have made them furious. He knows we must travel very slowly, but perhaps he thinks I was not really hurt much, and can help.

"I fear he will try. He is revengeful, and no one ever beat him before. He has always beaten all men at the wrestling. That was a terrible blow you gave him. I did not think that a blow from a fist could make a great strong man tumble down like an ox."

Pierre put his paddle over his knees for a moment to light his spare pipe, and looked at the raw knuckles of his right hand.

"It was a good punch," he admitted. "But the question is, what are we going to do? It is going to be a job traveling with the idea that at every bend in the river he may overtake us and begin shooting. What sort of a gun has he, by the way?"

"A shotgun," she replied. "Shoots big round balls for big game."

"And Maskoush?"

"A single-barrel—old Hudson Bay—little ball."

"Neither of them much good beyond a hundred yards," he commented, feeling somewhat relieved, yet remembering that once in a while one hears of wonderful shots made with a big round ball in a smooth bore.

It was yet early in the afternoon, and a gentle breeze was rippling the water and stirring the leaves of the white-trunked poplars.

Pierre paddled on steadily and strongly, and seemed to be traveling fast, yet he knew that his speed was as nothing compared to what the other two could accomplish if they cached all their stuff and came after them as fast as they could after repairing their canoe.

There was something strange about this trip. The unconventional companionship disturbed the young man's mind to some extent. The idea had not suggested itself to him before.

Yet when he looked at the dusky creature before him, clad in the rags that were left her after a hard year in the North, and considered that she was but a poor, suffering, wild thing upon which he had taken pity, he smiled to think

that some Mrs. Grundy, back in the civilization from which he was so distant, might have something to say.

There was also a queer sensation of helplessness, and he realized that in this expedition she was the leader. In her keen, strong, young face he read wonderful determination, and, after all, her life had been of the woods, her mind understood the workings of Indian brains, her experience was such that under these circumstances he was a willing but inexperienced woodsman, and hers was the craft needed for a voyage that might be easy, or might prove full of difficulties.

So he again spoke to her:

"Anne Marie, we must decide upon what we are going to do. Those two can catch us if they try. I don't know what is best. I am not of the woods. You must decide, and I will do whatever you say. You must think, and tell me your plan. I leave it all to you."

She looked at him, somewhat surprised. An instinctive modesty, a feeling that her judgment was nothing as compared to that of an educated *monsieur*, prompted her answer.

"You are a *monsieur*, very strong, and I only a girl and weak. It is not for me to say."

"But you know a lot more about this sort of thing than I do," he retorted somewhat impatiently. "After all, this is all your affair, you know, and I'm giving up my trip to help you out. Just forget all about my being a *monsieur*, and get it into your head that I expect you to boss the whole thing. Now, tell me all about it, like a good girl."

He lifted his paddle from the water and raised the blade high up, putting his lips to the handle and allowing the water to run down into his mouth. The girl thought for a moment before speaking.

"We can only make the next portage before dark," she said. "Simon cannot follow very close. It would take a good many hours to mend the canoe, and then he knows we are watching for him. It is pretty late in the year for his long journey. Perhaps he will not follow."

"But the man loved you," he objected. "And then he may want revenge. He may have that whisky, you know."

"Oh, he is mad, *monsieur*. He is

furiously by this time. He wants me, and he wants revenge. I should have killed him."

"Well, that may happen to him yet," said Pierre. "But I think it would have been rather high-handed. So you think he is pretty sure to follow us?"

"He will follow, I fear."

"All right, that's settled. Now tell us what to do," he answered lightly, as a youth whose sore knuckles spoke of an easy victory already achieved, and who, in consequence, was not disposed to attach very great importance to his foe.

"We must get beyond the portage and travel as far as we can, even after dark, and then we must hide ourselves somewhere and watch the river. They will not travel at night, as they will be afraid to pass us."

"We must go on only in broad daylight after that, and keep on watching the river. Then if we should see them we must go ashore at once, and if they come on you must fire. If they are in deep water hit the canoe low down; that will stop them. But if they are in shallow water you must shoot at Simon."

It did not seem like much of a plan, but Pierre could think of nothing better, and decided that, after all, circumstances would have to guide them. He bent to his task again, and, for a *monsieur*, certainly sent the canoe at a lively gait, yet, from further experiences, he dimly suspected that even Anne Marie, had she been in her usual health, could have paddled it faster and more untiringly than himself. He remembered how he had seen mere children of the North making canoes fly.

The girl, with the rifle near her right hand, and still resting the left on Paddy's back, kept watch over the river.

Her gaze, hawklike, remained steadily upon the river behind them, and even when Pierre addressed her she never for a moment relaxed her watchfulness.

He began to question her about herself, and she replied in few words. Yes, she knew how to read and write—the Oblate Fathers had taught her. She could also speak a little English, but it was a very difficult tongue to her.

She had taken her first communion six years ago—she was eighteen now. Her father and all her people were Mon-

tagnais, except her father's sister's husband, who was a Tête de Boule. Mas-koush was an Algonquin; his father and mother had come from somewhere down the Saint Laurent.

Now the river was narrowing, passing between cliffs topped with a disheveled mass of rank and tangled vegetation. The deepening water became very dark and silently swift. A fish-eagle hovered overhead, with great wings nearly motionless. At intervals he uttered a rasping cry, and then the deep silence reigned again, but was soon dispelled by the booming of tumbling waters.

"Look out for the rapids," cried Anne Marie. "The *saut* is to the right."

"I had to portage here. And right there, near the little sand-spit, is where I camped for the night," said Pierre.

"Yes, but you can shoot the rapids easily. It is all strong, smooth water on that side. Stay very near the shore."

The river was narrowing still more, and they swiftly reached a place where the white water was beginning to boil. A powerful stroke of the paddle sent the canoe well inshore.

The current seized it and bore it fast toward an upstanding boulder, but another stroke guided it just to one side and the great rock shot by them like a living, flying thing while they went on down—down—with the speed that intoxicates.

In another moment, the frail craft was bobbing gently up and down in the eddy at the foot of the rapids. They rested a moment while Pierre lit his pipe again, and started once more, the paddle ever dipping, dipping until the motion became a monotonous grind, and there was no sound but the drip, drip of the paddle, and no motion but the rhythmical, short, straight-elbowed sweep of the arms.

Once in a while the paddle was changed to the other side; and all along Pierre was conscious of the unending stare, just to one side of his head, of the Indian girl's dark eyes. Paddy was lying still, unconcerned, only wagging his tail whenever his master looked at him or spoke.

The young man was in good training, yet his arms ached with the toil and his speed had diminished a little.

The sun was touching the jagged edge of the distant woods in the west when Anne Marie spoke.

"The portage is ten minutes," she said, without even turning her head. "It is a short one, and the landing is on the right."

In a few moments the roar of the cataract could be heard. The water rushed down on both sides of a little island.

They landed upon a huge flat rock, and Anne Marie, with the gun, sat down, still watching the river, while Pierre came and went with his loads.

Once more they embarked and the journey was resumed until, in half an hour, the girl pointed to a high rocky island that stood like a sentinel in the river.

They got out on a bit of shelving rock, and Pierre carried the canoe out of sight from the river. The packs followed, and by the time this was done the darkness was upon them and they stumbled about in search of a spot level enough to put up the tent.

They found no place where the white silk would be out of sight from the river and decided not to use it. Fir was plentiful, and they soon had a lot of bedding.

"What if they go by us in the dark?" asked Pierre, as he opened one of the packs for food.

"I have said they will not travel in the dark. If they went by us, they might have to go far and waste time. They would make tracks over the portages, and we would know that they are ahead. No, they will not go by in the dark."

"Shall we make a fire?"

"Yes, a small hot fire—there between the two big rocks."

Pierre got some of his half-smoked moose meat and started the kettle for the tea. He first fried some of the meat and then made a couple of big flap-jacks, the whole size of the frying-pan. As soon as this was done he threw water upon the fire and they began their meal.

Pierre was ravenous, but the girl ate little. Paddy, as usual, was ready for all he could get.

As soon as they had finished they took their blankets and wrapped themselves up, lying down under the fir-trees.

(To be continued.)

O'HALLORAN OF SECTION 9.

BY J. R. STAFFORD.

**Roberman Hired Him To Be a Fool,
but Even Fools Have Their Privileges.**

UST as Roberman's section-gang was knocking off for the day, O'Halloran, six feet tall and every inch of him in a hurry, dashed up along the track like a man in search of a doctor. Opposite the hand-car, however, he halted and began abruptly:

"Me fri'nds! I am but thray wakes in Ameriky, aan I kem from thot parrat av the ould sod which prodhuced Willington—the same thot captured Napolyion Bonayparthe at Waterloo. They were both av thim very greaat aan famiouts gintelmen, as yiz who have taken the throuble to rade hist'ry aare aware, even if Napolyion did have the misfortune not to be born in Oirland. Me fri'nds, be the luk av intilligence I persave in the faces av yiz aal, I mistake not but this is aal common knowledge wid yiz. But it is me failin' whin I am wid wise aan idgicated persons thot I run to ancient hist'ry aan the higher form av learning. Phwat I kem rushin' fure to ask wor a job, me fri'nds."

Now, Roberman's section-gang consisted of five worthless ignoramuses—and Roberman. Of what Roberman consisted, I leave you to judge. His father, who was the president of some railroad or another, had

tried to start him first in one department, then in another, and at last had given him up.

Wherefore Roberman, whose head was the shape of a door-knob and only a little larger, had determined to make a great effort for himself. At that time the G. and T. belonged to nobody, being dominated simultaneously by seventeen sets of stock and bond holders.

Each set dreamed of finding a powerful railroad ally somewhere which would force the other sixteen out of business.

Roberman, scion of Roberman the president, was the very man for whom the



EVERY INCH OF HIM IN A HURRY.

G. and T. was looking. He permitted himself to be found. But there his complaisance had ended, because when it was insisted that he accept the post of general manager he replied that he desired to be,

But now, as he stood listening to O'Halloran, he was overjoyed. The Irishman would help to pass the time away. He hired him on the spot.

"Be me sowl, Misther Roberman, but it's the foine thing yiz have done fure me this day," O'Halloran proclaimed as he boarded the hand-car and began pumping with a jerk that swept the three men on the other bar clear off their feet, "aan savin' thot, too, a foine thing yiz ha' done fure yerself. Fure be the luk av yiz about the forrid aan the oies—meanin' no disrespect—but yiz will be nadin' a powerful fri'nd yerself wan av these foine days, aan whin yiz do, beloike it will be Timothy O'Halloran thot will rise up aan stand betune yiz aan the boss thot's higher up."

Roberman, having taken on O'Halloran as kings take on jesters, forgot that the fool has his prerogatives. It occurred to him that it would be well to knock the Irishman off the hand-car and run over him. But, being one of those who decide on one thing and then do another, he grinned sheepishly and deferred ac-

tion until he could take an hour off and think it over.

When they came to the section-house he ordered O'Halloran to stow the tools, and, commanding the crew to follow, he repaired to the bunk-house and laid the case before his advisers.

"Wot's the harm in 'im?" Raddles, who was a genuine hobo, demanded. "He might work, an', if he would, he's big enough to do ever'thing. That's allus been my idee of a good time: to have a feller along that would do the heavy lift-in' an' the sweatin' jist as he's a doin' "

O'HALLORAN WAS DOING
ALL THE WORK.



like his father, a practical railroad man.

If they would not start him in at the bottom, then he would not start. If he had reached for it then, he might have had the presidency; but he had, after all, only the ambition of a cart-horse—so he asked for section 9.

He had now been foreman a little over two weeks; but, in that two weeks, in the processes of natural selection he had gathered around him the most ignorant white men who ever mauled spikes. He would have been happy but for one thing. There was no one to amuse him.

now." He turned and pointed to where O'Halloran, ignorant of the use of the rails leading to the shed, was simply dragging the hand-car over the ties by main strength.

"That's the system," another of the crew agreed; "look at him. That's the way to pay him off, Roby. Work him to death, an' let yer friends take it easy."

Roberman decided there was wisdom in the advice. Not being gifted with the large patience necessary to follow out the plan, he proceeded to the tool-house for the pleasure of a little momentary vengeance.

Being awkward in attack, he began: "Well, I see you have hauled that car in. Say, you haven't any more brains than to do what you're told. You haven't any more sense than a work-horse, you clumsy bog-trotter!" And he was very angry as he said it.

"Childther," O'Halloran observed good-humoredly, "are niver quite fit fure the jobs av men; but it's no parrt av moine to be kickin', fure I have said I shall be a powerful fri'nd to yiz, on account av yiz havin' givin' me me start in this loife. Whin yiz become a hobo, aan I be siction-boss, yiz will undherstand."

Roberman forced derision from his wrath and succeeded in cackling impudently:

"Your start in this life?"

He imagined this lead would afford an opportunity for wittily overthrowing O'Halloran. "Your start in this life? Humph, you must expect to amount to something, eh? What do you think you'll amount to? How do you imagine you will ever get on top?"

"Be doin' me work," O'Halloran answered simply. "Jist as me fayther, who wor a schoolmaster av the hedges, used always to say to me. Aan his last word before I tuk ship a month ago wor, 'Me b'y, in Ameriky all yiz have to do will be all thot's set fure yiz. Aan some day the main boss over thim all will come around aan see it; aan he will take yiz by the coat, Tim, and he will say, 'Yiz aare the very mon I have been lukin' fure this long toime. Come wid me to hoigher wages aan continual promotion.'"

"Aan thin he would go on, me fayther would, aan say, 'It will be so, me b'y, fure Ameriky is a great place fure silly

fellows to be fillin' hoigh places; aan yiz can make no mistake in goin', fure if yiz be a mon av wit, yiz will rise be your powers; but if yiz be a fool, yiz will still rise, because it is the way av the counthry.' Aan bedad aan I know now the ould man wor right, fure surely yiz aare in authority."

Still Roberman had not enough. He persisted: "You couldn't fill a high place if you had it, you ignorant chump."

"Indade, aan I might fail in the matter av manners. I made the mistake av beginnin' wid the notion av bein' a gintelmon which, in yiz ownself, I persave, is distasteful; but, as fure knowledge av hist'ry aan the hoigher branches, I be as full as an egg av meat."

"Me fayther wor a foine wan in the mathematics, aan he taught me all he knew, not knowin' but thot I would become a greaat surveyor over in this counthry or the sicritiry of the War Departhment, which, as yiz know, rayquires not only surveyin' an' navigation on account av the work wid fortayfications aan navigable strames, but addition an' long division also, to cast up the accounts av the quarthermasters. Aan as fure the manners, I could hire me a cart-driver or other swearin' blackguard to mistrate me underlings."

After that, Roberman contented himself with the satisfaction of giving the Irishman three men's work and seeing that he did it. And there was no trouble in finding work on section 9. It was the worst on the division. The whole eight miles traversed a badly broken country. Since the G. and T. had been built by a set of promoters, who merely wanted a profit on the construction, the construction was of a wonderfully fearful character.

The ties lay unballasted, and there were curves where there should have been straight stretches. The management, being perfunctory, had attracted to it, in the natural process of organization, the most worthless and incompetent heads of departments you could imagine.

The roadmaster, whose business it was to see that Roberman kept section 9 in order, merely came around once a month, and, after smoking a short pipeful, got on his velocipede, pumped on to the next section, and eventually to undisturbed slumbers in his office at headquarters.

But section 9 began to enjoy a different reputation. No sooner did O'Halloran realize that he was doing all the work than he grew vastly interested in doing the work well. It made no difference to him that Roberman and Raddles and the rest sat in the shade of the nearest tree and played seven-up while he set spikes and drove them home.

He had seen railroads where trackage is a first consideration, and, having observed, he knew what constituted a road-bed. Ballasting by hand-work is a slow process; but O'Halloran, studying each superfluous curve and tossing cobbles while he studied, soon had a bit of foundation in those places where a foundation was most needed.

Immediately after he had made these simple improvements, the roadmaster came along. Never had that official dreamed of so much permanent work on the G. and T. Remembering that Roberman was the son of a great railroader, the roadmaster sent in such a fulsome report on the magnificent showing of section 9 that Roberman was summoned to headquarters and tendered the position of roadmaster.

When it was explained to him that this was in the way of an earned promotion, he ducked his flat-topped head and accepted. No provision was made for the man who had lately occupied that post. He was disposed of, and that was what should have been done with the whole management.

If Roberman had only known to let well enough continue, he might have earned another promotion. But, in the nature of his situation, he could not do that. He actually believed that he had won his new post, and straightway he began to win the next one himself.

His plan of campaign would have been brilliant, too, but for one defect. He contemplated rebuilding the G. and T., but at that very moment the G. and T. could not raise enough money for the rehabilitation of its rolling-stock. However, the president listened to him with attention, canceled an order for the construction of a roundhouse on the site of one burned the month before, and put the funds thereby released at Roberman's disposal.

Roberman made himself the superin-

tendent of construction, and, calling for a work-train, went back with it to section 9.

O'Halloran, greeting him, demanded: "Aan shall I be made boss av this siction now, Misther Roberman, be way av payin' me for the rise yiz got be accidint?"

Roberman, at length freed of the necessity of a fool to amuse, still felt the necessity of a crutch, made O'Halloran his assistant and appointed Raddles to section 9.

Next day the rebuilding of section 9 was begun. Roberman, as chief engineer and chief everything else—like a boy in a man's place—had forty separate and distinct ways of doing everything; but, not having the courage to decide on any one for any length of time, whatever he undertook he did not finish. The fill below the trestle on Plum Creek, just after he had it half finished, was altogether too expensive a piece of work, he decided. Likewise, he quit straightening the Pine Hill curve, leaving it a sharper elbow than ever.

O'Halloran saw the waste of money and opportunity, and he became unmanageable.

Among a great number of bad places in the line, the Marsh Curve was probably the worst of all. The Grapevine Cañon, which sometimes contained a river, flanked the marsh on the west. The marsh—it was nothing but a very low alkali flat—lay a mile wide between the cañon and the Grapevine Bluffs. Because the promoters had seen fit to come out of the bluffs at a point across the cañon half a mile above the site for the trestle, they had strung the road across the marsh in a great curve.

A curve anywhere is hard enough to hold, but on a slippery alkali flat the feat is well-nigh impossible. The slow orders, broken rails, ditchings, and breaks that were always holding up traffic at that point had rendered the Marsh Curve infamous.

When O'Halloran and Roberman came to this place the new roadmaster, laboring under the impression that he was what his position indicated, decided to do something on his own account. Any fool of a freighter even would have known that the way to abolish a curve

was simply to strike straight from the cut in the bluff squarely across the marsh to the trestle.

But Roberman, knowing nothing of ways except those already made, and having great respect for the builders of the road, determined that the Marsh Curve only needed a little more ballast.

be afther fixin' it. Yiz must have the backbone to raypudiate it intoirely."

When his recommendation was laughed at he declared: "Be me sowl, Mистер Roberman, if yiz attmpt this, I shall forward me own riccomindations to the manager wid a thrue statement av me worruk aan the fills av section 9. Yiz shall not



"AAN WHIN DID IT COME TO
BE PROPER PRACTHISE TO
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TIN YARADS AV
STEEL?"

"Ballast yer granny!" O'Halloran snorted. "It's ballast on the side av the head av the mon thot laid out the line thot's naded."

And, thinking of what the mistake would cost him, he expostulated: "Now be plazed to stand be thot notion, or yiz will be afther ruinin' me. Whin yiz be foindin' a mishake the loike av this, don't

ruin me aan me records aan me chanċe be this fool's blunder."

Roberman, of course, sent in his recommendations and, as a matter of course, too, O'Halloran sent in his. But, as O'Halloran never got off the section, the only answer that came back from headquarters was a work-train carrying a ballast-gang. O'Halloran watched the bal-

lasting of the curve as another man might have watched the dissipation of his fortunes. He knew what would become of it, and he knew that in some way Roberman would lay the responsibility on him.

On the second day of the work he went into the box-car office on the temporary siding; where Roberman was rolling cigarettes, and protested:

"Misther Roberman, I wish to praysint



COMING TO A TEN-FOOT RAIL LENGTH, HE BROKE IT OUT FROM THE GRIP OF THE SPIKES.

this fact for yiz to consider. This ballast thot yiz be so fast a puttin' in is not a goin' in as it should. Yiz will be afther havin' the outside av the thrack the lowest aan this curve. Yiz are afther makin' a bad matther worse. I know it. I have been watchin'."

"It's the way I designed it," Roberman declared with the *sang-froid* of an ignoramus when he really commits himself. "I have figured out that by having the outside rail lowest, the strain on the inside one will be removed, and there will be no more broken rails."

"Rails!" blazed O'Halloran. "Rails! Aan whin did it come to be proper practise to risk a wreck to save tin yarrds av steel? Yiz be loony! Be the powers, I tould yiz wance yiz would be a nadin' a sthrong fri'nd some toime! This be the toime!"

But Roberman, having gone past the point where O'Halloran's shafts might

strike, only puffed benignantly and calmly said:

"I have wired in to the manager that by six o'clock to-morrow afternoon Marsh Curve will be in A1 condition, and, in spite of the curve, it will be the fastest track on the division. He has wired back that when I confirm my promise he will start out with a fast engine and his car and try it out. You had better go back to the work, O'Halloran. Didn't I tell you that I expect you to see it hurried?"

The Irishman went back. All of that afternoon he strode back and forth along the fill, watching it become more and more dangerous every moment. By morning he had arrived at this conclusion: Since he had been delegated to see the work done, any defect in it would be charged to his neglect. He saw his ability used as a stepping-stone by a fool, who would finally use him as a buffer.

As the ballast-gang started out for

work after breakfast, he once more climbed up the step to the door of the car on the temporary siding.

Roberman was sound asleep, and a drowsing youth was sitting at the table whereon the telegraph-key ticked its endless monotony.

"Me b'y!" O'Halloran's eyes were blazing at the thought of his opportunity. "Yiz will sind a telegraft to the manager, advisin' him not to come wid his fast special. The thrack is dangerous. Freights aan locals passin' on slow ordthers in the noight have tamped it on the wrong soide. Say to him O'Halloran bids him come very slow."

The youth grinned at first; but, fearing the look that was in the Irishman's eyes, turned to the key and rattled off a message, which went nowhere because the line was not switched in.

"Aan phwat does the manager say?" O'Halloran demanded at length.

"Says he's much obliged, an' will mind you to the letter."

"Havin' thin discharged me duty to the road," the factotum averred, "I shall resign."

Going over to Roberman's bunk, he roused him with a rough shake and these words: "I am done wid yiz aan yer job, Misther Roberman. But I shall sthay ontill the manager comes, fure he has jist now bid me he will come slow. Aan be the token av thot, I take it he will be afther wishin' to see me whin he comes. I bid yiz a gude-by, sor. I shall go out aan wandther along the right av way ontill he comes along."

He bowed, and went out as majestically as a Wellington.

Roberman, floundering out of his bunk in a rage at being awakened for such an outrageous cause, sank back to hilarity when the wireman told of the message which did not go.

"Let the bog-trotter go, then," he laughed delightedly. "Let him go. And I hope the manager's special runs on his slow order and catches him on the track."

But Roberman's peace of mind was soon shattered. At 10.30 o'clock the western freight, a fast through, came lumbering down through the cut, and, in slowing for the curve, came near to toppling from the fill.

Moreover, when it finally reached the trestle the engineer sent back a big and profane fireman with a sharp and sulfurous message. The tenor of that oral deluge was that Roberman was a train-wrecker, an idiot, a felon, and a marked man.

However, the roadmaster knew his rights, and, knowing them, ordered the fireman to be off. He sent a message to the manager, requesting him to have the division superintendent discharge the crew on that run of the western freight. Now, the G. and T. management had expected some outbreak or other as a result of having hired Roberman, and, being prepared for it, his request was granted instantly.

Even this balm to his feelings could not put him altogether at his ease; for Roberman, after the fashion of his kind, was sure of nothing, if any one—even an enemy—doubted him.

He went out and looked over the fill

on Marsh Curve, and marveled how low the outside rail had sunk.

There is no telling what might have happened had he run across O'Halloran then. Instead of meeting the Irishman, he fell in with the old roadmaster, now a gang-boss. The roadmaster that had been bowed to the roadmaster who was, and adhering to his sycophancy, congratulated him on his promotion, and averred that this piece of work should make him a general official.

Roberman did not stop to discuss the matter. Relief from his doubts was all he wanted, and, having secured it, he hurried back to his office in the car.

At two o'clock in the afternoon O'Halloran, who had spent the morning on the trestle, came back to the camp for something to eat. He had expected that the work would be stopped, for he really believed that he had reached the manager with that message. But when he found the ballasting just about completed and the work-train ready to pull out, he forgot his hunger and went again to the office.

"Misther Roberman," he declared, "there be something about this thot I don't loike at all, at all. Why did the manager permit av yiz goin' in this fool scheme?"

The roadmaster wanted no more doubts cast upon him, for they were worrisome. Since he knew a controversy would bring them in untold weight, he evaded the question and lied for an answer. While he was doing this he was also writing a message to the manager. This confirmed his promise that the work would be completed! He wondered if it wouldn't be wise to modify his statement about fast trackage, and then, being undecided, allowed the matter to stand as it was.

Presently the answer came back. The manager was just leaving Falls, two hundred miles to the west; and, as it was now 3.31, he would be along at about 8.30. Roberman was advised that if any freight should be near the curve at that time, it should be set in on the temporary siding used by the ballast-gang.

The balance of that afternoon was so dull on the alkali flat that every one but O'Halloran went to sleep. He would have slept but for one annoying thought: Why had the ballast-gang been allowed

to go on and finish? He went out and sat on the right of way, hoping that an extra of some kind might come along and stop long enough to give him some information. But no extra came.

As night drew near, the office force in the box car roused and began making preparations, at which the Irishman marveled. He slipped around to the side door, and overheard Roberman saying: "They'll be along in forty-five minutes. Joe, you take a lantern and go down the track to the ballast-switch, for there's that way-freight to be backed in on it. It's going to be close; and, if they don't hurry, the old man will hit them about the time he leaves the trestle. He'll be comin' onto Marsh Curve to-night faster than any train that ever hit it before."

O'Halloran wasted no time; but, clambering up the steps out of the dusk, he thrust his head into the door and delivered: "Aah! but yiz lyin' booby, I will show yiz a thrick thot bates a hundthred av thot. I shall go this minute to build a fire beyant the trestle to make them slow down."

There are times when even fools and cowards rise to the occasion. Roberman turned to Joe and dictated this message to the manager:

The crazy Irishman who protested against my recommendation on this work still objects to the work after you have sanctioned it and after it is completed. He is now threatening to stop your train with a signal-fire on the other side of Grapevine Trestle. Disregard any signals that he may make, for the track will all be clear.

"Yiz be afther murderin' him," O'Halloran shouted fiercely, and he sprang up inside the car. But Joe, obeying the imperious wave of Roberman's hand, snapped the switches together, opened his key, and rattled off the words.

Just as O'Halloran's heavy hand was clutching at his wrist, there roared down from the cut the noise of a freight-train.

"Flag them down!" yelled Roberman. "Flag the devil!"

Joe answered: "They hain't no time now."

"Be the way they are a hittin' av thot curve, there will be no nade av the flag!"

O'Halloran boomed down upon the two. "Be loike thot's the noise av it right now!"

There came a crash like the report of a heavy gun.

They ran over to that door of the car which commanded the sweep of the curve. Far down in the deep dusk there twinkled many and strange lights, but the silence of night and the desert was profound. It was as if the heavy freight had been suddenly snatched out of existence.

"It's gone over the fill," Joe choked.

"Yis, it's gan' over the fill, as aany man wid the sinse av a pig wad have know'n!" O'Halloran reiterated.

Roberman, thinking only of his disappointment, forgot the manager and his special. It was O'Halloran who first thought of that. Turning to Joe, he said: "Tilegraft the manager thot it be toime he listen to O'Halloran! Sthop him!"

This time Joe did not neglect to cut in the switch. But when he called for the last station at which it was now possible to catch the special he found the wire was down.

Roberman lolled down on the table, cursing his luck.

"Luck!" stormed the Irishman. "Be loike it is luck for yiz thot the manager will niver know phwat happint him. But if yiz wor the tinth parrt av a man, yiz would be afther doin' somethin'. The wreck yiz have produched has broken aff the wire. Yiz must stop thim in some other way."

He took the advice to himself, leaped to the ground, caught up a spike-maul and a pinch-bar, and, running off toward the wreck, shouted back to them:

"Come aan! Come aan! I nade the hilp av both av yiz!"

Roberman, with his helplessness upon him, hesitated. After a full ten minutes he jumped up, grabbed a lantern, and, yelling at Joe to follow him, ran down the track. Passing the wreck with no more hesitation than he might have displayed had the train been on the siding, he came at length to the end of Marsh Curve and Grapevine Trestle.

There O'Halloran, gigantie in the night, was wrenching at fish-plates with his bar and striking Titan blows with his maul.

"Come on!" shouted Roberman, "we

must start a signal-fire on the other side!"

"Hould on! Yiz have warned him ag'inst a signal-fire! Hould! The toime be shorrt! We must ditch thim s t h r a i g h t forrurd aan the flat aan pray the saints be wid thim, for nawthing ilse can save!"

But Roberman, in the stampede of his fears, ran on. O'Halloran, realizing that he was alone to do his ten-men task, cracked fish-plates with single sweeps of his maul. Coming to a ten-foot rail length, he broke it out from the grip of the spikes, and, using it for a lever, pried over rail lengths of ties and tracks like a child at play.

Hardly had Roberman's footsteps died away on the trestle than the job was done.

Five rail lengths of track had been swept off the fill and pointed into the flat.

When the manager's special came along it would plunge down the rails where they bent from the low embankment and flounder on into the marsh.

O'Halloran, with his breath coming in gasps and his senses reeling from his terrific exertions, paused thankfully.

That instant a splay of white light shimmered and the roar of a high-speed engine thrummed on the night.

An instant later the headlight of the manager's special shone clear and open at the top of the long grade, illuminating it all the way down to the trestle.

In the beam of light O'Halloran saw Roberman, lantern in hand, half-way across the long bridge. Then he disappeared.

The lantern still burned in the middle of the bridge, but its bearer was gone.

He watched breathlessly, hoping to see Roberman rise from some girder and come running back.

But Roberman had vanished.

The special tore across the tottering trestle at forty miles an hour.

O'Halloran saw the lantern snuffed out. He groaned beside the disconnected curve.

The flying engine from the west took



"COME WITH ME. I LIKE YOUR STYLE."

his improvised derail. He saw a portly old gentleman with white whiskers leaning far out of the left-hand window of the cab, and the next moment he saw the same old gentleman shoot out of that window and disappear in the darkness.

Then came a great thump and the hiss of steam as the locomotive plumped over on its side.

O'Halloran set his teeth and strode to the wreck. As he stood listening in the darkness, a match was struck. He saw a very formidable apparition appear just where the old gentleman had disappeared—formidable, because it swore with appalling fluency.

It called mightily for Roberman.

The matter of explaining the wreck and the duty of hustling to the trestle for the maimed body of Roberman, and finding him still hanging by his hands to a tie for fear he would fall if he attempted to change holds, was soon accomplished.

Then the president, who was a former mule-driver, took O'Halloran by the shoulder and, after the manner of the parental prophecy, said:

"Young man, you're the very feller I've been a lookin' for. You come with me. I like your style. For, by the powers of mud, any man that can save a train by ditchin' it, has got the business down to a mighty fine point."

A Ride On a Runaway.

BY J. S. COYLE.

THE TRUE STORY SERIES. Self-preservation is the first law of nature, but man shows his superiority over the rest of creation by proving that it is not the final law. If Fireman Cole had not shown that courage and ingenuity came before the blind instinct to jump, it is probable that this story would never have been told, though the ending would have been much more exciting. Panic is one of the few things that the mind cannot imagine without realizing. Consequently, it is almost impossible to guard against it. Therefore, the man who is cool and resourceful in danger is a real man, whose orderly mind can place the proper value on risks and chances.

A Wild Dash Over the Country In a Light Engine, With the Throttle Jammed and the Steam at Top Pressure.

TRUE STORY, NUMBER FORTY-FOUR.



O ride on a runaway engine, and feel that the next moment would surely be the last for me and the crew—that was my experience on a prominent Southeastern railroad several years ago.

I was on my way to Lynnburg, a station about one hundred miles from Clifton Junction, where I expected to catch No. 12, the east-bound passenger-train. As the train on which I was traveling from Langham was late, the east-bound train had left on its journey a few moments before I arrived at the junction.

Disappointed, because I was expected to relieve, the following day, an operator

who was going on his annual vacation, I inquired of the operators in the main telegraph-office what chance I had to catch a freight.

I was informed that a light engine, No. 206, would leave immediately, following No. 12, for a station near Lynnburg, at which a freight-train had been wrecked.

Hastening to the railroad yards, I sought Engineer McDonald, who was to have charge of the light engine, but was informed by him that "there was nothin' doin'"; that it was strictly against the rules to allow any one to ride on the engine without a permit from some head official.

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

Rather disheartened, I started back to the passenger station, when the engineer called me back.

"What's your name, and what's your big hurry?" he demanded.

I modestly informed him that my name was McCoy, and that the telegraph operator for the road at Lynnbury had already left that city on his vacation, under the impression that I would arrive on No. 12 to relieve him.

"Well, I'll wait a minute; run up and see the super," said McDonald.

I rushed up to the office of the superintendent, and, securing the much-needed permit, quickly presented myself to McDonald, showing the necessary bit of paper under his nose.

He quickly called, "All aboard!" and we were off.

The crew aboard the engine was composed of Engineer McDonald, Fireman Cole, Conductor Jones, Brakemen Kane and Hill, and myself.

At the invitation of Fireman Cole, I took a seat on his box, and, as I did so, I overheard a remark by one of the crew that the 206 was the third successive engine to be started out to the scene of the wreck. I did not think much of the incident at the time, but afterward its significance came to me with redoubled force.

"Ever take a ride on a light engine before, McCoy?" inquired McDonald.

"No, sir," I said.

On leaving Clifton Junction, and passing the bend on the opposite side of the river, the engineer jocularly remarked that he would show his passenger a "touch of high life," and opened wide the throttle. A long the

banks of the river the engine went with rapidly increasing speed.

"Better look out for No. 12, Mac," suggested Cole; "she might get hung up before she reaches Mount Wilson."

Acting upon this suggestion, and fearing that for some reason the passenger-train ahead might have stopped at some one of the many curves along the line, the engineer decided to slow up.

To his great surprise, the throttle was immovable. Alarmed for the safety of all aboard, McDonald attempted to pull back "on center" with the reverse-lever. The result was disastrous, however; the "dog" snapped off, and the reverse-bar began whisking back and forth with increasing speed.

The engineer, astride the mechanism,



IT WOULD BE SURE DEATH TO TAKE THE LEAP.



TO BREAK OPEN THE DOORS WAS BUT THE WORK
OF A MOMENT.

tried his best to control the engine, but to no purpose. Finally, his wrestling with the bar resulted in an injury to one of his legs.

"Great Scott! McCoy, I believe Mac's leg is broken," said Cole; "help me lift him off this place."

Together, we lifted the engineer from the vicinity of the jerking lever and placed him upon the coal-pile in the tender.

Meanwhile, we were speeding on to what seemed certain death and destruction. Luckily for us all, the regular scheduled trains were few in number, and our only fear, aside from a tail-end collision with passenger No. 12, was a head-ender with No. 9, the west-bound passenger. This train was, however, reported about two hours late previous to our departure from Clifton Junction.

During the excitement attending the accident by which the engineer was injured, the engine shot forward with increasing momentum. Fearing that it might leave the track at any moment, I grabbed my satchel and started to jump off on the side next the river, but was restrained by Cole, who assured me that it would be sure death to take the leap.

Rocking from pilot to tender, and swaying from side to side, the engine went whizzing by telegraph-poles and switch-lights, with here and there a high bluff, at a speed sometimes exceeding, it seemed, ninety miles an hour.

Meanwhile, the conductor and his two brakemen had remembered the first law of nature — self-preservation — and had clambered over the tender to the brake-beam in the rear, where they at least hoped to secure an easy fall.

"To the brake-beam for me!" ejaculated Jones as he made his way over the coal-pile of the rocking engine.

"Me, too," said Kane, who was quickly followed by Hill.

"Guess we won't have to fall very far, anyway, if we do go," remarked Hill.

"It's farther than I want to fall, at that," remarked Jones, as a settlement of further argument.

While the other members of the crew were seeking safety on the back end, the fireman began demonstrating his resourcefulness, first, by turning on "full" the injectors. Then, taking a hammer, he proceeded to smash the "pop-off," the whistle having previously been tied down to sound warning notes from the time of the discovery that the engine was uncontrollable.

Cole, with my assistance, then pulled the fire from under the boiler, after which the progress of the engine became slower and slower until, finally, just at dusk, it came to a dead stop about a mile from Mount Wilson Station.

Every member of the party heaved a deep sigh of relief as their feet touched the ground again.

But our troubles were not yet ended.

Upon learning that Mount Wilson, a telegraph station, was only a mile away, I suggested that some member of the crew walk with me to that place rather than wait to flag some passing train.

It was decided that the conductor should remain with the engineer. Each of the brakemen took up a position the regulation flagging distance from the now dead engine, while the fireman and myself walked to Mount Wilson, which station was, however, only open during the daylight hours.

Arriving there, we found that the agent-operator had left for a neighboring village to attend a dance, and would not return until late. Thinking perhaps the agent might have left behind the keys to the station, we inquired at his boarding-place, but were informed that our only chance to secure entry to the telegraph-office lay in our awaiting the return of the operator from his frolic.

At this juncture, the fireman again showed his cleverness.

"Here's a rail fence, kid; I guess that will help some," he said.

To secure a heavy rail and break open the intervening doors was but the work of a moment. After our forcible entry, I heard the despatcher calling stations down the line in an endeavor to find out what had become of No. 9.

Not waiting to seat myself at the telegraph-table, I reached over to the key, and attempted to "butt in" upon the despatcher to inform him of our precarious situation.

I was not familiar with the calls for the different offices along the road ex-

cept that of the despatcher's office; and when I attempted to signal:

"To Di—" he jerked out at me. "Get out, will you!"

Finally the wire became clear for a time, and I had an opportunity to explain our unfortunate accident to the despatcher at "Di."

Requesting me to stay close by, he called Bellows Falls, another junction point, and asked him if engine 308 could quickly be gotten ready for a relief run. On being informed that it could, the despatcher told the operator to call out a crew in double-quick time and hustle them to Mount Wilson, at the same time putting out an order giving them right over all trains.

Meantime, the despatcher had notified all east-bound trains to approach the scene of the wrecked engine carefully, and to be on the lookout for a flag, following it with an order to me to hold all west-bound trains until further orders.

No. 9 had been having troubles of her own with her steam and with hot boxes; and before she reached Mount Wilson the 308 had arrived, and had towed the dead engine to a side track.

On the arrival of No. 9 at the scene, the conductor was placed aboard her, while the remainder of the crew followed on a west-bound freight.

When 98, a fast east-bound freight, came along, I boarded the caboose without waiting to apologize to the agent for breaking open his office. As I landed on the cushions in the rear of the car, I mentally resolved:

"No more light engines for me!"

THE OPERATORS' 10 COMMANDMENTS.

1. Thou shalt not sleep on duty.
2. Thou shalt do all telegraphing, as well as other work, in haste.
3. Thou shalt not swear, drink, smoke, chew, nor gamble.
4. Thou shalt not stop the "limited," for thou shouldst know that thy record will be charged with ten brownies.
5. Thou shalt not make excuses for thy mistakes, nor lay the blame on thy fellow operator, causing him to lose the job which he has gained with his own hard labor.
6. Thou shalt never lay off on account of sickness, nor for any other cause whatso-

ever, for thy pay surely stoppeth with thy labor.

7. Thou shalt not be content with doing thine own work merely, but shall help the agent in all of his duties.

8. Thou shalt answer thy call immediately, for thou shouldst remember that thou will be accused of neglect of duty.

9. Thou shalt honor and obey thy "boss," that thy days may be long on the job that fortune has given to thee.

10. Thou shalt not be content to allow thine office to be like a pig-pen, but shalt sweep it daily.—*Santa Fe Employees' Magazine.*

HELP FOR MEN WHO HELP THEMSELVES—NUMBER 31.

(The Rogers Group. No. 2.)

THE RAILROAD MACHINIST.

BY ROBERT H. ROGERS.

NO man is better able to tell of the wonderfully picturesque time—from the shopmen's point of view—between the very old days and the present, than is Mr. Rogers. The attractive period of the shops, the period when romance and picturesqueness were an integral part of the life, was the period of twenty and thirty years ago.

Now the machinist is a man trained to take his place in any department, but at last arriving at the time when he must make a definite choice of the one in which he will make his future. To be an all-around man is an impossibility.

When once he has made his choice as an apprentice he becomes a specialist, all his faculties concentrated on mastering a branch of the machinist's trade, which in itself is as complicated and demands a wider knowledge of the inwardness of more mysterious things than did the whole range of the trade in the days of the skilful, picturesque "journeyman."

**In This Age of Specialization, the Young Machinist Is Being Educated
for a Career of Great Usefulness. Why the Round-
house Attracts Men.**



AFEW years back, they always referred to the railroad machinist as a "journeyman," and this appellation of endearing memories, dear at least to the older fellows who may read this article, has not, even yet, slipped into the apparent oblivion toward which so many traditions of the past in this stirring business seem to be unfortunately tending.

The railroad machinist has become a power in the land, and the now unfamiliar

"journeyman" served a long way toward this end. Drop it at any time, when in confab with some power that is of the road whose experience antedates the past decade or so, and you will make a friend of him, or you will awaken his interest anyhow, and that is a whole lot, to which you will readily testify if you ever had dealings with a busy motive-power boss.

The old name came up unthinkingly, not so long ago, when the writer was in conversation with a prominent mechanical superintendent.

Began in the April Railroad Man's Magazine. Single copies, 10 cents.

"I wish," he said, "when on your travels, you would pick me up a few good journeymen, to round out the gang I have. I need them—" And then the same thought seized us, and we smiled, reminiscently and happily.

The designation, inadvertent of course, was, nevertheless, a true echo from the past. Each of us, in days gone by, had been journeymen, and the recollection vibrated one of the sympathetic chords which make the world akin.

In the period when a boy who, in shop vernacular, "got free," or completed his apprenticeship, the established precedent was to quit shortly afterward, and to seek elsewhere experience which the home field, through possible limitations in size or scope of work handled, could not afford. Needless to add, this was long before the comprehensive system now in vogue of educating apprentices for future benefit to their own shop was even dreamed of.

Now this errantry has fallen into disrepute, largely because there is nothing to be gained by it. With the railroads spending annually vast sums to train their young men to particular ideas, for subsequent exemplification, it would be a poor investment, indeed, to make the future of the apprentice so unattractive that some other road would get the benefit of this elaborate instruction.

Moving West to the Money.

It was different then. Primarily, the machinist's pay wasn't there. Instances are plentiful on many roads, not so far from the Atlantic coast, where, in the early nineties, embryo machinists were started in as low as one dollar and seventy-five cents per day.

The proper compensation for a graduate apprentice was certainly not in the East, although it was known to be in the West; and, furthermore, the opportunities for advancement were lacking. Because these favorable considerations were in the West, or elsewhere, eight out of every ten apprentices, when "through their time," utilized what was left of their bounty, after a few days of time-honored and winked-at jollification, to get West, or, at least, out of town.

The two who remained were derisive-

ly scoffed at as "home guards"; and, no matter how good they might have been at their trade, were forced to take the leavings of the good jobs, in deference to possibly less able hands who, nevertheless, possessed the inestimable advantage, impressive to foreman and master mechanic alike, of having "worked around some."

This is how the term "journeyman" came to be applied to machinists; and some of these journeymen found the life of the road so attractive, and the knowledge that they had sufficient ability to make good in any shop between the rising and the setting sun so consoling, that they never did return to the home shop, and are journeymen still, after these many years.

Passing of the Picturesque.

By easy transition journeymen become "boomers," and to what is known of the boomers and their wanderings we owe all that there is of the romantic and picturesque in the railroad machinist's calling.

There is an element certainly pathetic, tragic almost, to the old railroaders in the passing of the boomer machinist and of his brother, the boomer boilermaker. No doubt, hundreds of a new generation still roam in desultory fashion the many iron trails west of the big river, but the familiar names will be recalled only by the veterans who may read these lines.

They have, one by one, dropped from the dilapidated roundhouses and tumble-down back shops which of yore characterized the desert country. The region of the Rio Grande, replete with stories of their escapades, knows them no more, but they will ever be associated with the days when machinists must perforce travel for money and experience.

Is there a master mechanic from Parsons, Kansas, to the Golden Gate, and from Seattle to the southern boundary of old Mexico, who has not encountered "Bum" Dailey, "Big Nose" Grant, "Windy" Lane, Pete Cody, George Tighe, "Dutch" Goodwin, George Lawler, or "Little Bill" Ritchie? There cannot be a single one, certainly none of the old school, because these erratic and versatile craftsmen missed working in but few places where locomotives do congre-

gate, on the western part of the map at least.

At El Paso, or in C. P. Diaz, you might have found, only ten years ago, these boomers of a truly remarkable period. Perhaps some of you have been there, and knew these fellows well, maybe worked with them, for all the writer knows; and if you are thus intimately acquainted, this story will ring true for you.

Some of the Lovable Characters.

You will remember that Mr. Lawler, in spite of eccentricities, was considered by all the foremen in the great Southwest to be the best machinist in the world, and you know of the things which he has done. Certainly you have not forgotten that "Bum" Dailey never owned a coat, or, if he did, he never wore it; and does there not remain a vague impression of his denim pants, inadequately secured about the waist-line with a trunk or baggage strap?

Remember how "Bum" blew into Albuquerque, New Mexico, once upon a time, looking so much on the bum that George Hancock, then master mechanic, and a very neat fellow himself, by the way, wouldn't give him a job simply on account of his appearance, badly as he needed good boilermakers?

"You don't look right, Bum," he said. "You've got those same old linen pants on, or whatever they are made of, that you had when you worked here six months ago. The sleeve is torn out of your shirt, and I can see your red hair sticking through your hat.

"I'd be ashamed of myself to disgrace the business with you. Trot along to the Colorado Midland, and come back here when you get fixed up."

"What do you want, George Hancock?" retorted old Bum. "Do you want a suit of clothes, or do you want a boilermaker?" And he went to work, as he had done many times for both George and Billy Hancock, and continued to do for the asking until the bell finally rang for him.

Have you forgotten that "Windy" Lane was the only itinerant machinist who carried "tools"? Can you think, now, what they were? Half of a be-

grimed two-foot rule, a pair of inside and outside calipers, a hook scriber, and a center punch. Small kit! But Windy secured many a roundhouse cupboard on the old Mexican Central, where cupboards were at a premium then, as they are now, simply on the argument that he must have a place where his tools would be safe.

What could he do with these elementary implements, worth, in the aggregate, about fifty cents? There was nothing which he could not do on a locomotive, from the ground up, and his ability, although he remained in a shop only from one pay-day to another, and often not that long, was so conceded that a job was his in any shop from Paducah to Barstow.

Bill Ritchie was a boomer, but he was a credit to the trade of the boilermaker. He forsook at last the rôle of a bird of passage, although few of those briefly mentioned have done so; and recently he passed away while in the responsible position of general foreman boilermaker on the Erie Railroad.

He could narrate incidents connected with his contemporaries of the past, and refer complacently, even, to experiences of his own, in a way which the writer knows has served to convulse with laughter some of the highest officials of the railroad, during an informal session, when somebody's private car was backed off along the line somewhere.

There is much amusing, of course, in such reminiscences. Even our personal adverse experiences become humorous after time has removed their poignancy; but, after all, there was hard work, and grief in profusion, in following the business during the period referred to, and there was little to choose from in this regard between what might be found in the home shop or elsewhere.

No Labor-Saving Devices.

The trade of a journeyman machinist, say twenty years ago, was not the trade of to-day, and with which this article properly has to deal. There were few, if any, labor-saving devices. No traveling-cranes capable of raising a one-hundred-ton engine bodily, wheels and all, to do with as you list.

Engines had to be jacked up, and with more or less refractory screw-jacks at that. Very few valve-seat planers were in evidence.

When a seat had to be trued, and this was quite a common operation before the advent of the balanced slide-valve, there was no alternative but to go after it with a hammer and chisel, until down to where a file could complete the job.

This chipping a seat was no slouch of a job, either, and it is entitled to a little special mention. It is doubtful if one machinist in fifty of the present day could do it; that is, in the time in which such things were supposed to be done then.

The Great Work of Art.

It was necessary to take an even chip over the entire seat, an area of, say, twelve by sixteen inches, and the least miscalculation in the angle on which the chisel was held must inevitably result in a terrific gouge, which might require hours with a file to get out.

There was no guide whatever but the steady eye and hand; and yet the writer has seen this cut so perfectly taken that less than twenty minutes' filing would be required to have the seat ready for the valve to be spotted down.

It was a proud day for any ambitious young man to be entrusted with this job, because it was a concession to his ability as a mechanic.

If studs or stay-bolts had to be removed from boilers, they must be trimmed off even with the sheet, and the portion then remaining chipped out. There was no air-drill, which you can procure from the tool-room now for the asking, and which will take care of a dozen bolts while you are cutting out one.

When cylinders had to be rebolted, such of the old bolts which would not back out had to be removed by drilling, and drilled with a hand ratchet. The holes were made ready for the new bolts by reaming in the same crude way; and when cylinders were rebored, the wheel operating the mechanism of the boring-bar was turned patiently and laboriously by hand, not to mention that it mustn't stop when the last cut was going through.

A hammer, monkey-wrench, and chisel were the foundation tools of a machinist's

kit, and the only other implements considered as really necessary were a two-foot rule, a pair of outside calipers, and a pair of inside calipers. These were sufficient, with what you or your helper could borrow, to make a very creditable showing in the roundhouse end of it. For machine-hands add a thread-gage, surface-gage, pair of dividers, center punch, and a square.

The majority of these fellows made their own tools, generally while passing through the period of apprenticeship, and some of their creations remain as enduring monuments to patience and ingenuity. Take those solid steel squares, for instance, with six or eight inch blade and heavy butt, which were the pride of all machinists to own, and the dream of every apprentice to make.

They were so cleverly put together that the eye, unaided, could not distinguish either the joints of the parts or the heads of the countersunk rivets which united them. It was a mark of distinction for a man to have made the working implements of his trade, and the majority did so, even to their treasured ball-pein hammer.

"Hogging" the Tools.

One of the most annoying features with which a boomer had to contend was the dearth of wrenches, etc., actually required for the daily work at hand. On account of no tool-room system in those days—in fact, no tool-rooms, except in polite misnomer—the "home guards" had the wrenches, sledges, spring-pullers, and blocking, and occasionally even such of the screw-jacks which would work, locked up in cupboards or hid away somewhere.

This was where the regular hands who stuck by the shop had the best of the floating element; but the boomers had the names of shops where a dearth of tools existed entered in their notes, and did not work in them unless they had to in order to reach the next place.

There was no such thing as a specialist during this period. When a boy was out of his time he was known as a machinist, and was presumed to be equally competent in roundhouse, back-shop, or machine-shop.

A journeyman was familiar with the air-brake; that is, he tackled the jobs on pumps and triples in due course, if they appeared on the roundhouse work-book. He was also supposed to possess a smattering, at least, of what the present-day pipe-fitter is paid to handle exclusively.

He was a blacksmith, in a way, because he would invariably dictate to the tool-dresser the desired color to which the temper of his chipping-chisels should be drawn, and he was also a bit of a carpenter, as he had to get out the blocks to put under the engines when the wheels were removed, and to fill the ports in the valve-seats of the cylinders.

Could Do Anything.

They were truly worthy of the title—"all-around men." Certainly, the picturesque boomers were. It wouldn't do for one of the latter to strike a town where a dearth of machine-men was in evidence and take the next freight out, simply because the bulk of his experience had been in the roundhouse end of it.

These gentlemen passed with equal facility into any department where an opening existed; and, as a rule, they delivered the goods, too, while they stayed there, even if the stay was limited.

This is the great contrast between then and now, and is the point where properly the story of the modern railroad machinist should begin. The business has of late years become largely, if not entirely, specialized.

The Four Groups.

The trade, so far as the railroad is concerned, might be boldly divided into four great groups: machine-hands, who transform the rough product of the foundry or blacksmith-shop into the finished article for repairs or renewals; floor-men, who assemble these parts into the complete locomotive, whether a new or a thoroughly repaired one, in the erecting or back-shop; roundhouse-men, who make the repairs necessary to maintain the locomotive in service until its mileage runs up to a total entitling it to a place in the back-shop for general overhauling; and tool-room and air-brake hands, who make and repair all the tools used in the va-

rious departments, repair the parts of the air-brake in entirety, and also the various auxiliaries of the locomotives, such as injectors, pops, whistles, and gage-cocks.

Specialists Now the Rule.

It is an almost unknown procedure now for a machinist engaged in any one of the above departments to be ordered to do even temporary work in one of the others mentioned. Yet the time is not so far removed when, if work became slack in the machine-shop, the men would be instructed to report to the roundhouse foreman; or, if there happened to be a wreck on the line, and the engines were delayed arriving at the roundhouse for their daily attention, some of the incumbents of the latter would run a lathe, planer, or boring-mill until normal conditions in their individual line had been restored.

The division of machinists' work into branches, as heretofore indicated, and the coming of the specialists, had its origin coincident with the tremendous development of the locomotive which began about 1890. Previous to that time there had been a period of, say, fifty years during which no improvements to speak of were made in either equipment, shops, or shop practises.

Locomotives of one generation were, to all intent and purpose, merely duplications of what had gone before. The way mechanics had themselves learned to do the various jobs, whether on machines or at the bench, was so taught by them to the apprentices; that is, if they had the inclination to teach them anything at all, as there was no compulsion for them to do so.

Unless in the instance of some particular shop, which may have been presided over by a young and progressive master mechanic, there was no initiative in evidence, and little attempt at original research on the part of the men to improve on time-honored procedure.

The Difference of Conditions.

This may afford a reason for the "all-around" machinist, or, in other words, the versatility of the journeymen and boomers of the period, a quality which, in

the degree exhibited then, would, to-day, be simply impossible of attainment. They could easily be all-around men, because there was little to get around.

Outside of the painful lack of labor-saving devices, which necessarily called for a much superior degree of skill and judgment than is now requisite to be a successful machinist, there were really only a few important jobs.

Any old-timer, if you talk to him about it, will get these down to five, viz., chipping a valve-seat, hanging or lining four-bar guides; setting valves, filing or reducing back end of main rod brasses, and patching a broken cylinder. And if you once learned thoroughly these operations, no matter where you went in the country to work, they were exactly the same, because all locomotives were alike.

All were single expansion, outside cylinders, narrow fire-boxes, eight coupled wheels for freight, four coupled for passenger; so very similar, in fact, to those you served your time on that, barring the inscriptions on their tanks, you might have imagined yourself back home.

Andy McWilliams, a veteran of the Southwest, truthfully defined it, when the writer sought advice from this Nestor, prior to his first essay into the unknown as a jour.:

"Don't lose your nerve, boy. The only things you will find different from here are the men's names and the engine numbers."

Complications and Progress.

Now we have both simple and compound engines; single, articulated, and geared, even. There are compounds of the four-cylinder type, with a high and low-pressure cylinder on each side; of the cross-over type, with high-pressure cylinder on one side and the mammoth low-pressure on the other; tandem compounds, with a high and low-pressure cylinder on each side, arranged in tandem fashion, one ahead of the other; and still again, of the balanced type, with high-pressure cylinders between the frames driving a cranked axle, and low-pressure cylinders outside the frames driving the wheels direct, as originally constructed.

Then, if the complication herein enumerated does not suffice, to cap the cli-

max might be added articulated compounds—monsters weighing over two hundred tons for the engine without the tender, two engines in one, although supplied by the same boiler.

The comparatively simple Stephenson link motion, of which in every detail the majority of the boomers were masters, is now largely supplanted by the unfamiliar Walschaert valve-gear. Steam superheaters have been introduced within the smoke-boxes. Solid brass driving-boxes, which, with their finished weight of but one hundred and fifty pounds, were ample twenty-five years ago to support their load, have given way to cast-steel boxes weighing over four hundred pounds.

Passing of the "Particular" Jobs.

Cast-steel frames and wheel centers have succeeded the wrought iron and cast iron of yore. Tender tanks have grown in water capacity from three thousand gallons to eight thousand and even ten thousand gallons.

The five "particular" jobs, to which the old-timer may have referred with much complacency, now number five hundred, each requiring the equal and exacting care.

"If a boomer were to start now over the circuit which many of us have worked again and again, he would scarcely find a similar type of locomotive in two of all the shops he would strike.

No one man could ever become master of the wealth of detail which these facts imply. Consequently, the all-around man passed, as have passed his still loved and venerated "particular" jobs, both victims of the development of the country and the increased traffic conditions necessary to meet it.

Roughly speaking, it requires the expenditure of \$3,500 per year to take care of each and every locomotive owned by any railroad. Of this, \$1,750 for general repairs, which heavy service usually renders arbitrary at the expiration of each twelve months, and a like amount to pay for the attention which it must receive daily during the intervening period.

On a railroad owning 1,500 locomotives this would reach the formidable sum of nearly half a million dollars for labor and material incidental to shop and

roundhouse operations alone, not to mention the oil and supplies, or the pay of the engineers and firemen.

The Most Important Trade.

Although some eight or ten trades are represented among those who benefit by this amount in wages, it is safe to say that an even half of it is disbursed to machinists alone. Not in anyway derogatory to the importance in the general scheme of the boilermaker, molder, or blacksmith, the fact remains that this is the predominating trade, as it has long been recognized as the most conspicuous.

To combat the problem of prompt, economical, and adequate repairs to power which has assumed so much complication necessitates resources beyond the conception of those who fought it out only a quarter of a century ago.

The Philadelphia and Reading Railway has recently completed shops at Reading, Pennsylvania, which may well serve to illustrate these requirements. This magnificent plant can turn out over one hundred locomotives per month, of which twenty might be new ones.

In fact, so broad is the conception of the problem in that quarter that the policy of the motive-power department of this company, as recently outlined to the writer by its mechanical superintendent, H. D. Taylor, is to be entirely self-supporting. They have not for a long time purchased a single item connected with the maintenance of cars or locomotives, not even the tubes used in the boilers.

Shops of the New Era.

In a somewhat less degree this innovation of the last decade or so is in evidence all over the country. The Baltimore and Ohio has vast possibilities in its Mount Clare shops, located in Baltimore, covering an area of sixty-five acres; and the mammoth establishment of the Lehigh Valley, at Sayre, Pennsylvania, cannot only take care of the annual repairs to all of its rolling-stock, but has facilities to add new locomotives should necessity arise.

The old, poorly lighted, and tumble-down machine-shops, landmarks, and indexes in the past to railroad terminals,

with their antiquated lathes and planers, shapers, and single-bar boring-mills—all driven from one line shaft—have been replaced by immense structures, scientifically illuminated and ventilated, and every machine, of maybe one thousand, with its independent motor-drive.

Gang-drills, capable of drilling a dozen holes simultaneously, have taken the place of the venerated drill-press, with its single spindle and wofully battered drill-table. Gang-slotters, with four and even six heads, plow industriously in shaping pedestals on half a dozen frames, piled one on top of another; and horizontal mills dispose of the bore of a driving-box in an even eight minutes, from start to finish, an operation which, on the face-plate of a lathe, formerly required at least an hour.

Where work had to be laid out before, and prick-punched with the utmost care along the lines where metal had to be removed, jigs and templates do it now. With one of these clamped on the job, it only remains to run the drill through its case-hardened holes, thus removing the human fallibility of the "layer-out" to err.

The Apprentice's Choice.

Planers have grown and grown, until they will handle the machining of fifteen driving-boxes with the one chucking; and one ingenious machine, when intelligently operated, will even properly locate and cut the eccentric keyways in an axle long before the wheels are put under the engine.

Specialization on the part of the machinist must be incidental to this revolution, although it might be inferred from the broad, general training of the apprentice, outlined in a previous article, that the reverse was intended to result from his education.

This, however, is not the idea. The apprentice is given experience in machine-shop, erecting-shop, and roundhouse, not with the expectation that he will be equally competent in all departments when out of his time, but in order that he may have opportunity to decide on the one most appealing to him.

Very little acumen is required on the part of the shop supervision, after a boy receives his certificate of apprenticeship,

to determine whether he is best fitted for a machine or a floor-hand. If this decision should be unsatisfactory to the graduate, in many shops he is allowed to make his own selection.

Those who are assigned or elect to follow the machine-shop end of it are placed on a machine at day wages, from \$2.80 in the East to \$4 in the West, or on piece-work at what they can earn. Whether day or piecework, however, it is known to the shop management, from carefully prepared statistics, based on actual time studies of all the operations, just how much each machine should turn out in a working day, and, needless to add, it is insisted that this output be maintained.

This is the cleanest and apparently, to the majority of machinists, the most attractive subdivision of the trade. The "floor," or erecting end, is rougher, and certainly requires more physical effort.

Although the shops are now equipped with overhead cranes for raising the engines, and portable cranes for handling cylinder-heads, steam-chests, and other heavy parts, there is still much lifting to be done.

Previous to 1890, there was not a cylinder-head which the writer could not, unassisted, take from the floor and put on the studs, and few main or side rods which his helper and himself could not carry on their shoulders to the machine-shop; but now some of these main rods weigh over a thousand pounds, and the cylinder heads are so cumbersome and so buried behind other parts as to be unmentionable.

The Erecting-Shop.

The erecting-shop machinist has his work confined to assembling the parts as they are delivered, whether new or repaired, by the machine-shop. Further specialization is in evidence in this department. For instance, one man, or a gang, will handle the pistons, guides, and cross-heads; another the steam-pipes, and still another the springs.

Regular men are always assigned to the exclusive work of setting up engines, that is, adjusting the backbone of the machine, the cylinders and frames; and there is always a valve-gang, charged

solely with hanging the motion work and setting the valves. These men receive about similar compensation to the machine-hands.

The exacting end, and likely the most vital to the general scheme, is the work performed by the roundhouse machinist. It is the hardest branch of the trade; hardest from any viewpoint, physically and mentally.

The machine-men and the floor-hands follow a certain routine. That is, they can closely estimate at the close of each day what is ahead for the next; but no living mortal can foretell what an engineer will put down on a roundhouse work-book. What he does indite may be reality, hobby, or supposition; but, be it as it may, the machinist must give equal effort in repairing the defect if it exists, or demonstrating the fallacy of the written report if it does not.

The Disenchanted Roundhouse.

The principal items requiring attention on locomotives between runs, in the machinists' line, are the elimination of "blows," whether in cylinders, valves, or steam-pipes; leaky piston or valve-steam packing, broken springs, hot or loose rod brasses or bushings, and injector troubles. None of these are easy jobs, on account of the conditions and the environment which attends them.

In the first place, the majority of the parts to be worked on in the roundhouse are hot, as naturally might be expected with the engine fresh off the road, making the handling of them equally identified with dexterity and profanity. The interior of the roundhouse, no matter how modern it may be, is disenchanted.

It is all grease, smoke, and dirt. Pools of water, miniature lakes sometimes, inundate the uneven flooring. Steam hisses from innumerable leaks in blower-line and other piping incidental to the establishment, and pandemonium reigns generally through the discord created by open blow-off cocks and a myriad stack-blowers operating in unison.

These features may not be applicable to all roundhouses, but they may readily be identified with seventy-five per cent at least. It is a curious fact that in the general rehabilitation of repair plants which

has been effected, that the roundhouse has always been the last department to receive attention.

The roundhouses stood still, while the locomotives which they were intended to house grew and grew. Without doubt, at this writing half the roundhouses in this country are so out of date that when a modern locomotive enters one of them the doors cannot be closed behind it. You can imagine what this implies in the dead of winter to the fellows working on the shoes and wedges in the pits.

These few instances of the general discomfort inseparably connected with roundhouses may serve to explain why the lot of the roundhouse machinist is a hard proposition, but it has, nevertheless, proved the most attractive to many men. Waiving the slight increase in compensation over the machine and back-shop, this is because the work is always new.

No roundhouse man, with his heart in his work, ever knew a long day. You never know what is coming in the way of a job, or what difficulties will present with it. It maintains interest all the time.

As a rule, roundhouse machinists are versatile. They can handle anything in the line of that work, and it would be difficult in this department to build up an adequate organization of specialists. The historic boomers were at the bottom, and, in heart, roundhouse men.

Of course, they could tackle a machine or a vise job, but they dug out what they knew—filing brasses, lining wedges, and grinding steam-pipe joints. It is a department which develops resourcefulness.

No two jobs on the same part, even, are ever duplicates, and each and every

In the next article in this series, which will appear in our June issue, Mr. Rogers will describe the occupation of a roundhouse foreman.

one requires more than the conceded allotment of judgment and good temper, if the engine must go out on its run, which it generally must, unless there is a prevailing dearth of extra power.

The machinists' trade, as a whole, is a good one. A bright boy makes no mistake in learning it, but it is no field for a "jughead." It pays well, too, and is improving all the time in this regard.

The two dollars per day which the writer received twenty years ago for all-around work has grown to three dollars and twenty-five cents per day in that same shop. They are paying on the Santa Fe four dollars and twenty-five cents in all shops west of Albuquerque, and there is a bonus system besides, in which a machinist's daily pay is guaranteed, and he can make as much more than that as his ability will allow.

It is the trade through which the roundhouse foremen, general foremen, master mechanics, and mechanical superintendents all make their way to the top. It is safeguarded, also, in these prosperous times in a way little short of marvelous to an old-timer.

It has its own and powerful organization, the International Association of Machinists, which is strong enough to secure working agreements with railroad companies, practically dictating compensation, hours of labor, and defining what constitutes machinist's work.

Just so long as stuff remains to be transported from one point to another, the steam locomotive will be there to haul it; that locomotive will require the same old repairs, and the railroad machinist will be there to make them.

FEEDING THE LION BY WIRE.

IN the Morse telegraph code the letters "T" and "L" are very similar, the "L" being a slightly longer dash than the "T." Unless operators are expert in receiving messages, they are very apt to make a mistake in these two letters. An instance of this was brought out the other day by H. L. Metcalf, who told the following story:

An agent in a small town on the lines of the Southern Pacific found a portion of the

foundation of the freight-house had caved in and sent the following wire:

"Foundation under freight-house needs attention. Please instruct."

The message was received by the freight department:

"Found a lion under freight-house. Needs attention. Please instruct."


His instructions were: "Feed the lion and notify the live-stock agent."

When Trouble Gives the High-Sign.

BY RICHARD MAXWELL WINANS.

WHEN a black cat crosses my right-of-way I back up and take another track," says the old-time news butcher after reviewing the incidents of a trip in which Disaster spiked all the switches and kept a firm hand on an open throttle. Fortunately, Good Luck sat on the pilot and did her best to keep our friend from a derail, but the value of live-stock went up by magic in that section by the time the claim-agent heard of it all. But Butch's memories of trouble are sometimes merry. Especially you will think so in the case where the trouble was of his own making—for somebody else.

Butch Lays Off His Run and Gets into Clear Long Enough to Tell Us How He Gave the Big Hole to an Expressman's Conceit and Pulled Through a Remarkable Day's Run.

 **T**HAT was back in 1887. I was 'butchin' then. And I ain't likely to forget some of the rough-and-tumble experiences and escapes I had while I was holding down that job, either.

"I didn't just exactly run away from home to take up the job of a newsboy on the railroad, but my parents opposed my going so much that it almost amounted to the same thing. It resolved itself into a simple matter of allowing me to have my own way, with the hope that I would get some of the starch taken out of me without serious mishap. As my grandfather had previously predicted that I was born to be hung, I suppose they felt that I was immune from wrecks and such things.

"On the third day's run my faith in the old man's prophecy was strengthened considerably. We were just entering a stretch of track that has, the Lehigh's snake trail looking like a straightaway, and I was just passing from one coach to another with my arms full of magazines, all un-

aware of the curves ahead, some of which were mighty near angles.

"I closed the door behind me and stood for a moment, both arms about the bundle, breathing deeply of the fresh summer air; when a voice called my name so sharply in my ear above the roar of the train that I turned to see who it was, only to face space.

A Ghostly Warning.

"Following my name there came the words, equally distinct: 'Hold fast—be quick!'"

"My fingers had only closed on the brake wheel when we hit a sharp curve that pulled me off my feet, threw me to my knees on the step and sent the magazines in a wild flipflap out over the fields. Well, maybe grandpap was right.

"I was hooked up with the Union News Company, working out of Cincinnati, and my runs were over the Cincinnati, Hamilton and Dayton to Toledo, and over the Monon to Chicago.

"News 'butcherin' those days wasn't any rosy-hued pipe-dream; leastwise not so that you would recognize the brand more than a train-length away, especially when a fellow had the hard luck to be under the devil's own kind of a superintendent that I had over me.

"Sometimes, when I get on a double-headed grouch, I think of him, and almost wish he has made his last run, and that I'll live to be good enough not to go where he did. The boys had to put up a deposit of ten plunks, and keep that much up all the time.

"Well, he'd manage to steal the deposit regular about every four weeks on the check up. That's why I can advisedly say I was 'hooked up.'

Little Home "Touches."

"I don't remember his name, and I'm glad of it. We worked on commission, and I know that what was left to me after he got his mitt on the rake-off was just about enough to pay for a fifteen-cent bed at the south end of the line—I slept in a sided coach at the north end—and buy a ten-cent *table d'hôte* on state occasions, with a run in at a free-lunch in between.

"Well, I didn't care those days, for I had a good home back on the farm to go to whenever. I felt like sidetracking the job. But, like any other kid of fifteen or so that had been feeding his steam-dome on high-pressure dime-novels from the time he could appreciate real classy romance of that elevating order, I was out for the adventure of the thing, and before I quit I was handed a whole stomach full. It didn't come on a silver platter, either.

"Meantime, as a matter of necessity, I was writing very 'touching' letters to *pater* that always brought real-cash money from home to meet such expenses as my niggardly commissions on sales failed to cover.

A Good-Natured Kid.

"I have forgotten the names of most of the different engine and train men; but I remember that I was such a good-natured kid, always willing to do anything for them, from carrying water and repacking a hot box to taking tickets or running the engine, that they were all my good friends.

"There was one old razor-back express messenger, though, that I had a run in with once that didn't seem to couple up with me very friendly. It was what was then known as the *Enquirer* paper train, run on Sundays up to Toledo.

The Messenger with a Grouch.

"The messenger who had the run before they put this old grouch on was a good fellow, and I used to help him make his running deliveries of the large bundles of papers from the car-door as we shot through the smaller towns. That train was out to make time, not stops, except at junctions and large cities, where great truck-loads were dumped.

"Well, the first morning that old goat took the run out I came down to the express-cars where the papers were being loaded, under the messenger's direction, from the big trucks and drays of the different newspapers. After the last of the line had cleared away I went to the car-door to ask for my "train" papers, as usual.

"It was about three-thirty, and still pretty dark around the sheds, so I didn't notice the change of men. When Billy was on, and the racket in the yards too dense to cut by hollerin', I just whistled a couple of times; and Billy'd shove my bundles, which he always set aside, out to the car door.

"I tore off a few Tettrizzani highs without getting him on the wireless, so I ripped off a few yards of paint from the inside of that express-car with a whistle loud and shrill and piercing enough to rouse the sleeping community for a block around.

Laying the Trouble-Train.

"Well, say, if old whiskers had been coupled up with one of them electrical slot-machines when turned up full in the corner, and somebody'd dropped in a nickle and cut it loose on him, he wouldn't have set up and took notice any more sudden. He just let out two grunts, and in one jump was at the car door, his hair and whiskers all bristled up like the back of a tomcat ready for a fight.

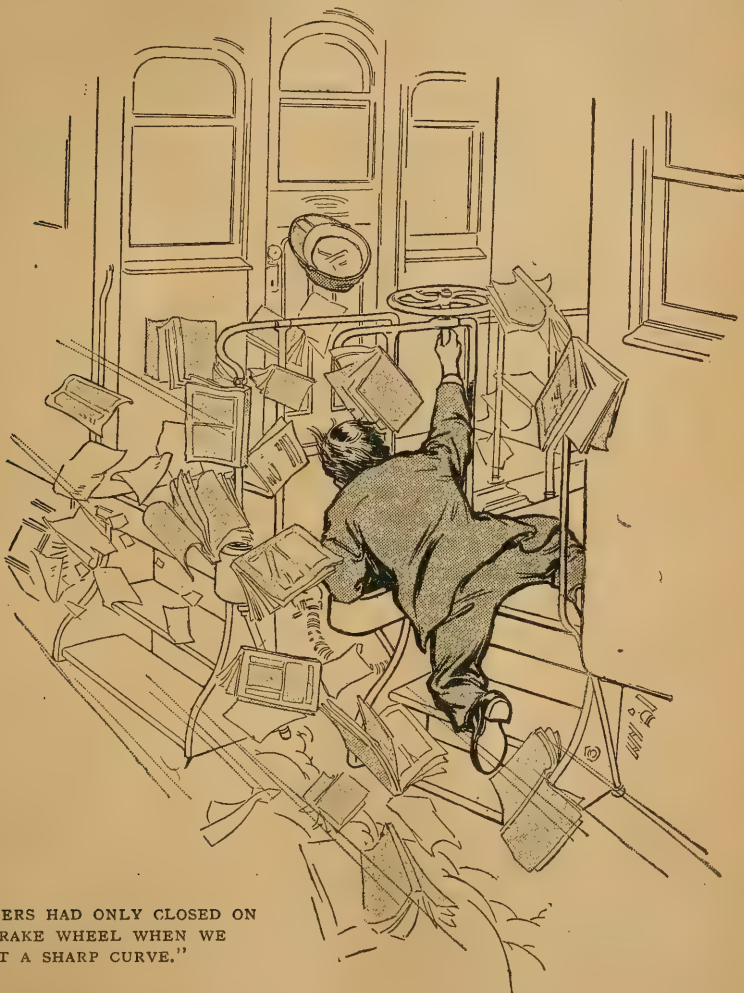
"Hey, you young devil! What do you think I am—a dog? Whistle for me, will

you? I've a good notion to kick that pie-face of your'n clean into the back o' your neck. The next time you do it, I will. If you want your papers, git 'em yourself!"

"I did. But I resolved he'd remember the occasion. He did.

"We had hardly cleared the yards out

from me to have time for anything more strenuous just then, so I was extended a cordial invitation to lend a hand. From the developments that resulted before I got through mixing things up in that car I'll bet a stack that the old codger was real glad that I didn't have mor'n one to lend.



"MY FINGERS HAD ONLY CLOSED ON
THE BRAKE WHEEL WHEN WE
HIT A SHARP CURVE."

of Hamilton when the old boy leaves the express-car and pokes his head into the coach-door and passes the distress signal to the conductor. He'd got all balled up in stacking his car of 'first-out,' and he wanted the brakie to go up with him and help sort out.

"Jimmie was too busily engaged in the pleasant task of reading the death notices and obituaries in a paper he'd swiped

"Of course, I'm not on the carpet to explain how all the things happened that morning, but it may have been due to a little disinterested-carelessness on my part in arranging the bundles near the door for the running deliveries for the different towns that led to the sweet-tempered old gent's throwing the Miamisburg papers at Carlisle, and so on, in several instances. He'd never made a flying delivery before,

and so when he let loose the first bundle at Carlisle he took the top clean off some back-country agent's buggy standing near the track.

"He wanted me to throw the bundles for Franklin, which is across the river from the C. H. and D. station, but as I saw prospects of further similar stunts I pleaded a lame shoulder. We were by the station before he let loose with the first bundle of about seventy-five pounds.

Ignorance Couples Onto Bliss.

"He wasn't a good second to Michael Sheridan on throwing, but we were wheeling along at a flat sixty, if an inch, and the momentum carried that solidly tied bundle of papers clean through the side of a frame-house standing alongside the track, presenting the family a bigger batch of reading matter than they had probably ever had before collectively. And that bundle was originally intended for Lima, at that.

"At Johnston's Station he again gave evidence of his extreme amateurishness in making a flying delivery by sidewiping the three posts that supported the high station platform, letting it down with a ripping crash and some just-as-well-unheard remarks from the station-agent as he slid ungracefully down and lit on a bundle of papers labeled 'Piqua,' a town about forty miles up the road.

The Messenger Wakes Up.

"But that old goat went calmly on enjoying the bliss of his ignorance of errors being checked against him that morning. I was too inconsequential to look at, let alone hold converse with.

"When we reached Dayton, our first stop, an irate official handed him a bunch of telegrams that had been pouring in from down the line and from the various newspaper offices in Cincinnati that dispelled his ignorance—also his bliss. Also, I may add, this was his last run on the Sunday paper-train.

"I say, Butch, do you believe much in signs?" asked Charlie Matterson, successor to the old goat afore related of.

"That depends mostly on the reading on 'em," say I. "Now, I took a run into a place up in Toledo one night last week

where there was a sign that read, 'Hot Free Lunch All Day. All You Can Eat. Help Yourself,' so I slacked ahead a bit and coupled on and started in to follow directions, when a two-hundred-pound bouncer got his knee in a rear-end collision with my freight and put me in the clear.

"Since then I have lost my abiding faith in signs.

"Naw, kid! Say, you got a loose brake-shoe; get it fixed. What I mean is signs, portents, omens, forebodings, and that line of dope. You know, where something that is going to happen is foretold by something that you see or hear or that occurs to you, like a black cat following you and meowing a tune like a funeral march in "Saul," or anything like that—do you see?"

Signs and Counter-Signs.

"We were perched up on the four-story stools of the depot lunch-counter taking our coffee and—before going out to the yards for the Sunday paper run.

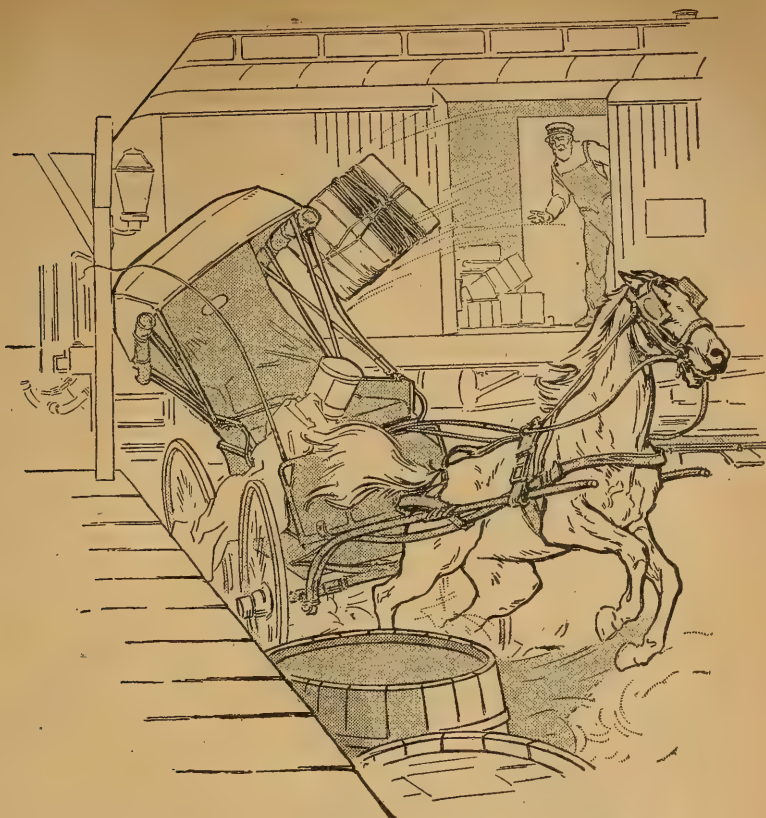
"Well," said I, thinking I could switch him off his bad-luck argument, "as another instance, there's a sign over there that reads, 'Best Coffee in the City,' and if some husky guy from up-State gets a dose of this slop it will sure portend bad luck to that sign."

"Oh, say, back up! You're too derved facetious. That don't answer my question."

"Well, then, I'm not very superstitious. But why? What's got on your right of way overnight? You were as happy as a boy just out of school coming in on the run last night. Now you look as though if you'd smile you'd do some bodily injury to your face."

Charlie's Numerous Warnings.

"Just this, kid. I'd advise you to report sick this morning, and not go out on this run. Something's goin' to tear loose before we double back, an' I know it. For why? Well, old Jackson's dog howled for two hours steady last night. I dreamed I was butchering an ox. When I got up I started to put on my left shoe first. My wife told me she dreamed she saw me surrounded by a flock of sheep—



"TOOK THE TOP CLEAN OFF SOME AGENT'S BUGGY."

and sheep are always unlucky when you see them in dreams."

"I forgot my pipe, and had to go back and cross the threshold to get it. A big black tomcat followed me for three blocks, meowing like a steam calliope, and when I came in through the shed I passed one of the cars they've set out for the paper run, and there's a "13" first in its number.

The Trouble Begins.

"Now, kid, you couldn't beat that hand of ill-omen, not even if you had the whole deck to pick it from," and he slid down from his aerial tower, carefully wiped his mustache, and gave me a look which said: "And you can't deny that!"

"I was just going to pooh-pooh his 'sign' ideas, when there was the rattling clash of a patrol-wagon gong, and we could tell by the sound that they were driving right into the yards back of the main-track shed. We were ready to start, anyway, so we walked hurriedly out

through the station and shed to learn what the trouble was.

"First thing we came to was a pony-yard engine, standing on one of the main line make-up tracks, blowing off, and no one near her. It was still quite dark, and Charlie held up his lantern to have a look at her.

"Great Heavens, kid, look there! Look at them drivers and side rods! And look at them links under there! It's blood!

"Well, they picked up what was left of that poor devil in water-buckets. He had been crossing the yards in the dark and got caught in the wheels of the pony.

Butch Will See the Fun.

"We went silently back to the car to wait for the papers to come down, and Charlie sat on his box without a word. He had come to the road from the West, where he run in the days when an express messenger had use for a gun, and he didn't know what it meant to be afraid of a man.

But I could see by the flare of the lantern that his face was as pale as ashes.

"Finally he looked up. 'Kid, you keep off this run. That thing out there is only a curtain-raiser to what's goin' to follow in to-day's play.'

"'You going, Charlie?' said I.

"'Going? Sure!'

"'Then, so am I.'

"'But it's different with me, kid. I got to go. Like as not, though, I'll come back in some other fellow's car—in a box.'

Taking It Out on Them.

"We had cleared Hamilton, when a red flag pulled us down, and we ran up to a gang of section-men having trouble at a road crossing where a traction-engine had passed over with the hook end of a log-chain dragging that had caught on a rail edge and slewed the track. Old Dan swung down out of the cab and called 'em all the things on his variegated list, and Conductor Thomas finished up as picturesquely spectacular a line of tongue fireworks as you'd find.

"I think that bunch of dagoes took revenge by holding us there for an hour, and an hour behind the schedule for that train meant a lot of trouble ahead.

"Dan climbed into the cab, with the remark that he was going to shove her nose into Dayton on time, even if he had to drag in some of the track and a part of the road-bed with him, and he came mighty near doing both. He just slipped her up on the links as far as she would stand, and still cut her steam; and, well, say, when we saw a town in the dim distance we started to put off papers, but they mostly landed a couple of miles beyond.

Old Dan Decides to Speed.

"Dan was dragging her in, all right, and first thing we knew we were crossing the river into the lower yards at Dayton. Dan didn't ease her up much till we had covered most of the yards and were in sight of the Union depot, when at one and the same time he cut her off and gave her the air hard and tight.

"But, light as we were, he couldn't hold her, and we jammed into an open switch and smashed into a pony-engine on

a spur. We had got there before the sound of our whistle at the bridge had reached them—so they said.

Charlie Gets His.

"I was on the rear platform to drop a paper for a flagman I knew, and had just opened the coach-door to come in; and I came right on in without waiting to close the door. I bumped slightly against the back of a seat, and my watch broke from its couplings and started on a trip up the aisle. I think it struck every seat on both sides, and finally landed against the farther end of the car, a dismembered and tangled mess of débris.

"The few passengers were mostly hanging over the backs of the seats in front, and all hollerin' for help. But my first thought was of Charlie up ahead, with tons of papers piled in the rear of the car. When I opened the door I saw I had guessed right. The bundles had shot ahead in promiscuous heaps and piles, and Charlie nowhere in sight.

"We finally pulled the poor cuss out, with a leg and four ribs broken. While I was holding his head on my knee, until the ambulance came, he said to me: 'Kid, I told you not to take the run out to-day. Better lay over here and go back. There's more coming.' But I wanted to see the rest of the show, so I went on.

The Cat Gets in Again.

"I heard months afterward, when he was at work again, that he refused to take out a run because a black cat, chased by a dog, had jumped into his car while he was loading at the platform.

"Jake Lareau coupled on his 27 to the 'paper,' and we started on the run to Lima. We were still behind the card, but Jake had a reputation that left no doubt as to what he would do with us. And he did it: He jerked us up the line so fast we couldn't hold our breath long enough to count the mile-posts.

"Just above Tippecanoe City he swung around a curve and sighted a farmer's spring-wagon crossing the line about a mile ahead, with the rear wheels in the middle of the track, but Jake got there just in time to tear the hind end clean off that wagon, and was blowing for the

yard in Troy before the farmer realized what hit him.

A Calf Takes to the Air.

"We left Piqua and had rounded the long curve into the straightaway, when a calf loomed up ahead, caught fast in a cattle guard. I was holding onto the overhead rail, looking out the car-door, and just got a glimpse of it, when Jake cut her open so quick he nearly broke the couplings, and the next I saw of that calf it was doing a Wright Brothers' flight over into a neighboring wheat field.

"I was just beginning to wonder if there really was anything in the black-cat sign and a bad start, after all. At Lima a yardman got his hand squeezed in hooking on the new engine. We were on time,

but the run to Toledo was a fast schedule, yet a grizzled old driver by the name of Steve was the man to cut it.

"Everything rolled smooth until after we left Ottawa. Jimmie and I were handling the papers in Charlie's place, and we were holding down the box recounting the morning's happenings, when Steve began to ride the whistle right after she cleared the long curve.

Mutton Goes Up.

"Jumping to the door, we saw a great flock of sheep packed tight on the track in a long string. We were running down grade and making over fifty miles per.

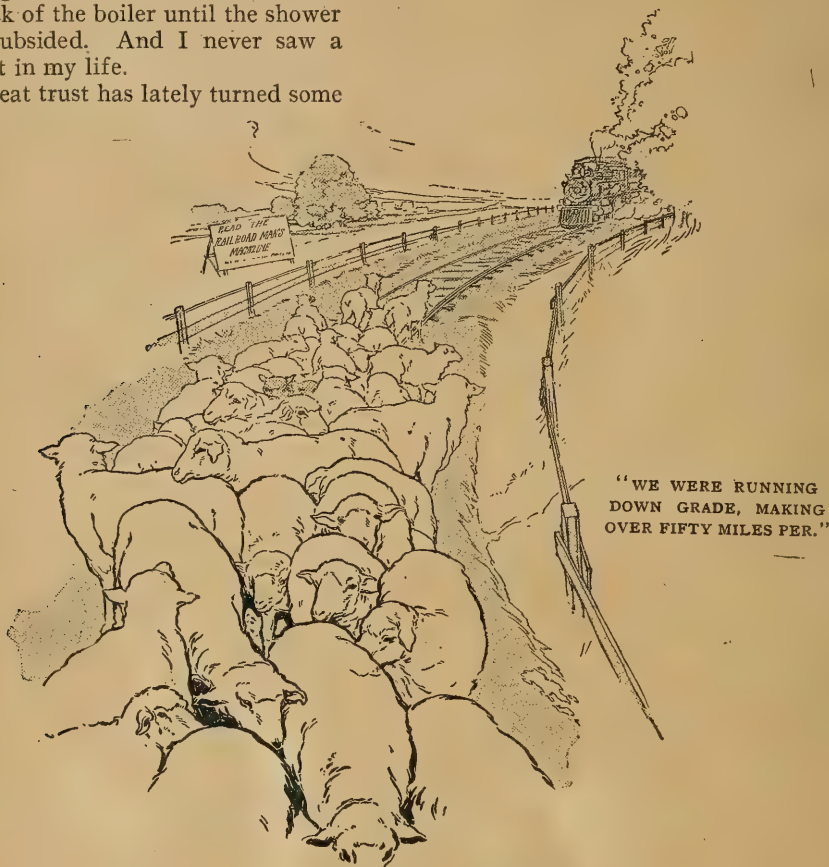
"Steve saw he was too close to brake her dead before he could get through, and with all that wool bunching up and roll-



ing under the drivers at slow speed meant a derailed engine, so he just yanked the throttle clean back into the coal-bin, opened the sand, give her the advantage of a pulling notch or two on the bar, and ducked back of the boiler until the shower of sheep subsided. And I never saw a sight like it in my life.

"The meat trust has lately turned some

another for the run-back. We had a regular passenger south, and made a good run as far as Columbus Grove, where Jimmie remarked that our entertainment seemed



remarkable tricks in raising prices, but there have been mighty few occasions when meat went up any faster or higher than it did while Steve was plowing a fifty-mile gait through that bunch of mutton. The sight that we got of it looked like a snow-storm—going up.

"When we pulled into Deshler, Steve's machine looked like a hillock out West after a bunch of cattlemen had made a raid of slaughter on a sheep range. They were piled on the pilot, on the running-board, and some on top of the boiler, and the odorous smell of scorched wool and mutton drove lamb chops and such forever from Steve's bill of fare.

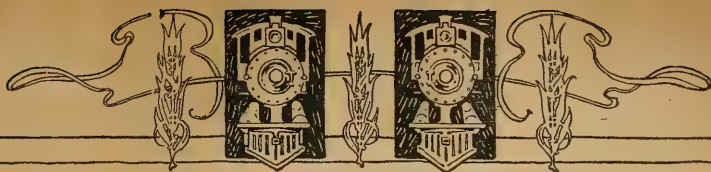
"At Toledo they ran his engine over to the house for a clean-up, and gave him

to be over for the day; and neither one took the precaution to knock wood.

"A big red cow had walked onto the track from a clump of bushes right ahead, so close to the pilot that Steve only had time to open her up wide and dodge before he struck that cow square in the middle, and a beef was never cut by any butcher into so many pieces in so short a time.

"That night we were nearing the Cincinnati terminal, when just as we left the bridge and swung into the yards the front trucks of the rear coach climbed a switch point and left the track, and we had to leave it for the wrecking-crew while we run on in.

"When a black cat crosses my right-of-way nowadays I take another track."



“Watch for Willets!”

**“Ten Thousand Miles By Rail” Is the Title of
His New Series.**

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“TEN THOUSAND MILES BY RAIL,” is a wonderful lot of new, gripping, human stories.

Next month, in the pages of *THE RAILROAD MAN'S MAGAZINE*,

“WATCH FOR WILLETS!”





THE OLD LOCOMOTIVE.

BY J. E. HARE.

Written for "The Railroad Man's Magazine."

SHE used to dash, with a roar and clash,
Along the gleaming steel.
She used to swirl with a clang and whirl,
And romp and race and reel.
She'd heel and swerve o'er stretch and curve,
The glory of the line.
And they said with awe, when her pace they saw,
"There goes swift 69."

She used to glow as she'd swiftly go,
With the glimmering gloss of silk.
She's assistant now to the humble cow,
And hauls the morning milk.
No more she flings, as the whistle sings,
Her smoke far down the line.
She has gone the pace and run her race—
Old worn-out 69.

There's a human side to her fallen pride,
For men are just the same.
For a day or a year they are heroes dear,
And live in the hall of fame.
But they fall behind in the constant grind,
And others cross the line.
Once our pace is hot, but we're soon forgot
Like poor old 69.



WHY WISTER WAS SHOT.

BY KATHARINE EGGLESTON.

A Reward of Money and the Love of a Beautiful Girl Hang Tremblingly in the Balance.

SAM WISTER, the Texas ranger, peered out from under his snow-covered hat brim at the whirling maelstrom of smothering whiteness that appeared to be scooped up from the prairie to join the feathery burden of the air and to twist into freezing spirals that tried to squeeze the last faint spark of life from his saddle-tired, wind-lashed body.

He glared at the moving whirlwind of snow. He felt as if its terrific breath must suck away his own. Then he lifted his heavy hand and clutched at the packet of papers in his pocket. Somehow a new strength that had the effect of warmth flowed through him. It was as if the papers possessed some mighty galvanic power.

They contained the death-warrant of a fellow man.

But to Sam they meant something more and different. He was struggling now, through the blizzard, to a house about five miles from Fort Worth, where Lily Menden lived and—so Sam hoped—loved him.

A big reward had been offered by relatives in England for the capture of the man who had killed a young Englishman who had been prospecting in Mexico and Texas.

The murder had occurred at San Antonio, but Pete Marsh had sent word to Sam that he would deliver the man who

had committed it into his hands at three o'clock of the night which would follow the storm-mad day, but the delivery must be at Fort Worth.

Sam had started on his long ride in threatening weather early in the week. Then came the blizzard, which had driven every live thing to cover or to death besides himself. He had pushed on, buoyed up by the promise of the big reward and the hope it gave him of winning Lily Menden.

He knew he must be within a few miles of her now. But the wild swirl of the wind caught and caressed the suffocating masses of snow into long arms that rose and reached for him till he was utterly confused.

He was on the verge of delirium. The snow-madness was beginning to fire his brain with its white-hot visions of fantastic disproportions. At one moment, the dully gleaming arms that reached for him were alive. The next, he knew them to be but writhing snow-currents. But he knew, too, that a time was soon coming when he should not recognize them for what they were, when he would fling himself from his stumbling horse and welcome their embrace.

Suddenly, the dying beat of his heart quickened with an excruciating pain.

A demoniac rage seized him at the racking interruption of the comfortable numbness of mind and body that had taken possession of him.

He writhed in his saddle and stared revengefully into the white waste about him. After a long interval, as it seemed to him, an explaining report came.

He was shot!

His horse stopped and stood trembling. Then, out in front, so vague that neither man nor beast could be sure that the appearance was more than some eccentric evolution of the snow, a figure showed for an instant.

Wister gave a hoarse cry. His horse moved on. Even following a shadow was better than meekly lying down to add another to the slowly piling mounds the storm was building.

Wister felt a twinge in his hip. He put his hand on the spot. There was a warm dampness. He turned suddenly sick and fell forward.

The reins, which were twisted about the saddle-horn caught him in their loop. The horse paused as the unaccountable weight dragged heavily to one side. He waited for his rider to adjust himself. Then, when Wister did not move, the animal began again its patient plodding through the snow.

The fagged creature took heart. There, too recent to be obliterated, dragging deeply through the snow, was the track of another of its kind. If Wister had been able to notice anything, he would have known that the shadow out in front was more than a fantasy of the storm.

Mrs. Menden rose tremblingly and started toward the door when she heard the sound.

A man entered, a Mexican, to judge from his speech and complexion.

"*Señora*, it was useless. I could not get on to Fort Wort."

He glanced quickly about the room as if to see if it had other occupants than the old lady and himself.

"It is all right," he continued as if to answer the frightened questioning in the worn, weak face. "I have shot him, with much care, in the hip."

Mrs. Menden gasped and tottered to her chair by the fireplace.

"He may get lost!" she said, seeming to vibrate between relief and fear.

"No! no!" the man assured her, his tones at once deferential and soothing, "I rode ahead. I watched till his horse had found my trail. It is slow going.

The horse is spent. If he does not come, I will go for him. Do not be anxious, *señora*, it is better—"

The door from the kitchen swung open, and Lily Menden came into the room.

"*Señorita*, you see you were right. I must seek your hospitality yet," the Mexican exclaimed, with an ease and grace that savored of contact with a social world different from Border Texas, or even the one to which most of the Mexicans who came farther north were used.

He had scarcely finished speaking when Lily's erect head bent in intent listening.

"What is it?" Mrs. Menden asked nervously.

The Mexican shot a warning glance toward her.

"You will have other guests," he observed quietly.

Lily was scraping the rime from the window.

"It's a horse! A riderless horse!" she exclaimed.

Mrs. Menden seemed to shrivel with terror as she grasped the meaning of the words.

The Mexican started perceptibly. Then he dashed to the door and went out into the storm. A moment later, he entered dragging the inert form of a man.

Lily had been unable, through the curtain of snow, to see the figure that hung motionless on the off side of the horse.

She lent her splendid strength to carry the victim of the storm to a chair.

"It's Sam!" she cried, seeing the bloodless face of the ranger.

Her quick hands felt over his heart. It was beating. She sent the Mexican for restoratives.

Then she saw the great stain of blood on his clothing.

"He's hurt! He's wounded!" she cried wildly.

The composure of the man who stood beside her did not change.

Mrs. Menden, whose power to feel seemed to have merged into an apathy, took little account of her daughter's exclamation.

"Wounded? *Señorita*, let me examine. I am somewhat skilled."

Lily felt herself pushed gently aside

as the Mexican bent to cut away the blood-soaked cloth and look at the wound.

It was a flesh-wound, the very kind that a duelist might give when he wished merely to incapacitate his opponent.

"Not bat at all, *señorita*. Water and bandages, and I will make it right."

He spoke somewhat loudly as if he wished the half-fainting old woman to get the meaning of his words.

Lily went quickly from the room to get the dressings.

The Mexican's hand slid to Sam's pocket.

"I will take the papers, to make double-sure," he said.

The ranger stirred and opened his eyes.

The Mexican's hand slipped down to the wound as if that were his only interest.

"It does not matter," he said to Mrs. Menden. "He cannot get on to the Fort—and I will go in the morning."

"I must go!" Sam said thickly, trying to rise.

But his tired body, weak from bleeding and exposure, failed him. He sank heavily back as Lily came into the room.

"Sam!"

She ran to him. Her eager arms closed about him.

Sam knew that the question he had meant to ask was answered.

"Lily," he whispered, strengthened by his joy. "I'm going to get the man that killed that Englishman at San Antonio. To-night, at three, in Fort Worth. There's a big reward! We can get married!"

The Mexican, apparently only casually interested in Sam's words, was standing by Mrs. Menden's chair. But, when she seemed about to cry out, his fingers pressed her shoulder, reminded her of the need for silence and control.

"You can't go to the Fort, Sam!" Lily cried. "Some coward shot you, and—"

"I've got to go, I tell you!" Sam persisted, almost roughly. "I've got to get the sheriff and catch that man!"

The Mexican spoke. His hand rested heavily on Mrs. Menden's shoulder.

"Then it is known who killed the Englishman?" he asked.

"No, not exactly. But Pete Marsh has got him, and he'll turn him over to me at three. That's why I've got to get there. He's hard to catch. Some one seems to keep him informed, and he slips right out from under our fingers."

Sam was breathing laboredly. As he finished, his head sank against Lily's breast.

"*Señorita*, he is too weak!" the Mexican exclaimed, lifting Sam to the lounge. "I will dress the wound. Then—I will take the paper and ride to the Fort. So you can be married, you see!"

He was busy making Sam comfortable. The eagerness with which his hands sought the papers struck Lily peculiarly.

She had grown up on the prairies, broad-minded and generous, but keen with the intuition that develops among people who must make quick deductions that lead to prompt action. Not knowing why, but instantly, she was in possession of the papers.

"When he is better we will ask him what to do," she said quietly.

The Mexican went on dressing Sam's wound with such an air of complete absorption in his task that Lily was half inclined to discredit her intuition. But she kept the papers.

"I think the man who killed the Englishman will not be caught—to-night," the Mexican remarked as he looked from Sam, sunk in deep sleep, out into the raging storm.

He took his candle and climbed up to the bedroom in the half-story above. Lily helped her mother to bed, noticing with alarm the added signs of age and weakness that each day seemed to bring.

"Bert's all right, mother," she said, consolingly. "He'll turn up before long. Don't worry about him."

But the mother would not be comforted.

Lily returned to her place beside Sam. She waited for him to wake, filling the time with pictures of the future that stretched promisingly before her.

Then, the full meaning of the reward began to dawn on her. Sam had loved her a long time. She knew this with a woman's inner vision. But it was only when he had a definitely good prospect that he had told her. If he lost this reward, it would mean, at the best, a long

wait. And young, loving, eager to be his wife, she contemplated the prospect with dread.

She looked long and critically into Sam's face. Deep lines of fatigue, the deadly pallor caused by the bleeding, his uneven breathing, told her that he could not hope to get to the fort.

It was nine o'clock. The papers must be there before three. She might call the Mexican. But, even without the suspicion that would persist in her mind, she knew he stood little chance of arriving at the fort. He was too heavy for her pony, the only horse on the ranch that was so familiar with the route that he could keep his way in spite of the storm.

There was just one way to get the papers there in time.

She must go.

But her mother? For weeks, she had seemed to be in a state bordering on collapse. No word came to her from her boy; and, with the natural instinct of such natures, she had grown more and more dependent on her daughter. Lily wondered if she dared risk the ride on her account.

She looked at the man she loved. A great assurance came to her that her effort to serve him must meet with success. She kissed him softly and blushed as if he were conscious of the caress.

She saddled her pony and rode off into the storm.

At one o'clock she delivered the papers to the sheriff at Fort Worth, and explained Sam's condition.

No urging would detain her. At five, her brave little mustang was back in the shed, and she was shaking the snow from her clothes before the fireplace at home.

"Oh, Sam!" she whispered, kneeling beside him. "It's all right!"

She leaned her head against his shoulder. And morning found her there—her body relaxed and resting after its long trial.

The Mexican was looking down at her with a strange look in his brown eyes when she suddenly awakened.

"*Señorita!* You love him!" he said gently. "I have known another woman to love—so she die!"

Lily nodded. She could understand that.

Sam moved and groaned. Then he awakened. His eyes rested on Lily. As if she suggested it, he lifted his hand to feel for his papers.

"Lily, have you my papers?" he cried, as he discovered their loss.

Mrs. Menden was just coming into the room. She paused at Sam's question, and the Mexican turned quickly from gazing into the fire.

"They're at Fort Worth, Sam. The sheriff has them. I took them. By now, the man is caught!" Lily answered with happy pride thrilling in her voice.

Suddenly, her mother darted forward as if to strike her.

"You have killed your brother!" she shrieked, falling to the floor.

"What does she mean?" Lily asked hoarsely of Sam.

But Sam could only look from mother to daughter in complete confusion.

"My boy! My baby!" the stricken mother sobbed.

"Was Bert the—" Lily began. Then the whole terrible truth seemed to come to her and, with it, a poignant realization of what her night ride meant.

The Mexican watched the growing terror and the agony that looked from her wide eyes, then turned away.

"My God! I have killed Bert!" she whispered through stiffening lips.

Then Sam's part in the affair darted through her mind to add a new misery.

"Sam! You—you were going to capture my brother, to get the reward—"

But Sam interrupted her with convincing earnestness.

"I didn't know. None of us down there knew. Pete Marsh just promised to give us the man. He didn't mention a name."

"Then, perhaps, Bert didn't do it!" Lily cried.

"It was a young fellow. Nobody knew him down there. He just dropped into a card-room, won a lot from the Englishman, and they got into a fight. About three hours after, they found the Englishman dead in the street. They thought the boy done it. Some one knew where he bunked and, as they were all spoilin' for some excitement, they got a rope and went after him. But some one got to him first. He had lit out, and

he's been getting away ever since. I hope, if it's Bert, he'll get out of the country!"

Lily's cry of despair made the Mexican start and clench his hands till the knuckles showed whitely in contrast to the brown skin.

"Get out of the country? The sheriff has him now! He'll be hung!"

The door burst open as some one hurled himself against it. In the blinding sweep of snow, they all turned to see a man's figure dimly discernible.

The Mexican slammed the door shut. Mrs. Menden lifted her head and stared at the visitor for an instant.

"Bertie! Bertie!" she cried, her weak voice breaking with the weight of joy it expressed.

"Mother!"

The boy lifted the little figure and hugged her as if nothing could ever tear his arms away.

"Bert, is it you?" Lily whispered, lifted so suddenly from the depths of grief that she could not believe in the joy.

"I'm here, at last, thank God!" the boy cried fervently. "I suspected old Pete. He's fond of money, and—"

The color that had come into Lily's face left it.

"Bert! Be still! Sam's here!" she cautioned.

The boy lifted his head from his mother's shoulder, stared for a second at the ranger, then glanced at the door. A hunted look came into his eyes. He crouched as if he meant to make a dash for freedom.

He straightened up and faced Sam bravely.

"I didn't do it, Sam! But I can't prove it. I don't know any more about that Englishman than you do, except I know I never saw him after we had that fight. I didn't even know he was dead till some one told me they were coming to hang me for killing him!"

"I had to light out. They wouldn't wait to hear me. They wouldn't have believed, I guess, just like Pete wouldn't. He kept asking to see the pearl ring I killed the Englishman for. When they get the man that did it, he'll have that ring. I haven't!"

The boy's words rang true. Sam recognized the duty that confronted him. He

must arrest him and take him to San Antonio.

"You believe him, don't you, Sam?" Lily asked, as his silence continued.

"Yes, I believe him," he said slowly. "But I'm not the judge."

"You—you don't mean that you're going to take him down there! Down among the San Antonio bad men! They wouldn't wait to find out before! They won't now! They'd hang him first—and find out he's innocent after!"

Sam knew that doing his duty meant one thing. He would lose the girl he loved. And not doing it meant expulsion from the rangers and being branded as irresponsible and cowardly.

He was silent as the two alternatives presented themselves to him.

Bert eyed him narrowly; then, appreciating the position in which the ranger was placed, he said firmly:

"All right, Sam. I see how you're fixed. I'll go with you—and take what comes."

"Sam, don't take him! I can't bear it!"

Mrs. Menden sank at Sam's feet. It seemed to him he heard the mother-heart break as she spoke.

"It'll kill her!" Lily sobbed, lifting the fainting woman.

"What can we do?" Bert asked, his boyish face pale and his eyes wide with fear that showed he had forgotten his own extremity in the misery of his mother and sister.

In the accumulating strain of the moment, no one noticed the Mexican. He had stood perfectly still; only his opening and clenching his hands, held behind him, betrayed his share in the excitement. Mrs. Menden moaned as if in physical torture.

His lips drew into straight, thin lines as if he forcefully suppressed a desire to speak.

Lily turned her pleading, agonized face toward Sam.

The Mexican caught the look. He shrugged his shoulders slightly and said:

"Señor ranger, you will take me to San Antonio. I killed the Englishman."

They all looked at him. Bert studied his face as if it were vaguely familiar.

"Why! You're the man who warned me!" he exclaimed.

"Yes, I warned you. I had no thought that what I did would be fastened on you. I felt I must keep you from suffering for my deed. It is to warn you again that I came from San Antone. They wait there for the murderer. Old Pete sold you out. I came to help you escape. But the blizzard caught me.

"I am but a small way in advance of the ranger. I come here and tell your mother to take care for you. And I shot the ranger to make sure the word would not reach Fort Wort' that you are there before I can get to warn you. But your sister is brave. She take the paper. So I must tell."

They were staring at the calm man almost unbelievably. It seemed impossible to associate him with the crime he confessed.

"Why did you kill the Englishman?" Sam asked.

The Mexican spoke to the ranger with great formality.

"*Señor*, I have in my coat something that will tell you. I will get it."

He crossed the room, opened the stairway-door and disappeared.

Time passed rapidly as they all questioned Bert. Then, it occurred to Sam that his prisoner was a long time gone.

"He must be making whatever he's going to show me," Sam said.

Bert opened the stairway-door. A small packet dropped from its place on the latch.

Bert handed it to the ranger.

He opened it. A ring fell from the paper.

"It's a pearl ring!" Bert cried.

"It's a woman's ring!" Lily exclaimed.

"He killed the Englishman—on her account," Sam said.

Then he tried to rise.

"I'd like to know where he is!" he went on, sinking back helplessly.

But he never did.

The Mexican was gone. And the reward.

But the ranger married Lily before his wound was healed.

FOR THE MAIL-CLERK'S SAFETY.

The Missouri Pacific-Iron Mountain System Puts on Heavy Steel Cars of a New Pattern.

MOVED by the appeals of the railway mail-clerks, who assert that they are the most likely to injury on a wrecked train, because the last to demand and receive adequate protection, the Missouri Pacific-Iron Mountain system has put all-steel mail-cars on its fast passenger trains between St. Louis and Kansas City and St. Louis and Little Rock and Texas. Statistics show that one of every eighteen persons killed or injured in railroad wrecks in the United States last year was a mail-clerk.

The cars are entirely new, of a type designed by General Manager A. W. Sullivan, of the Missouri Pacific, and are said to be the first of their kind in use west of the Mississippi River.

These new cars were built by the American Car and Foundry Company at its St. Charles plant. They are sixty feet long inside. The under frame is made of heavy "I" beams and channel irons, with transverse steel-plate diaphragms to which is riveted a steel floor.

On the top of the steel floor is laid a

heavy course of asbestos material for insulation, and this in turn is covered with a standard wood floor for the comfort of the mail-clerks.

The steel side walls are faced with a hair-felt and asbestos insulating material, which, together with the dead-air spaces between the outer and the inside walls throughout the sides and roof of the car, affords ample means for the prevention of radiation.

The car is heated by means of six sets of steam-pipe coils, which are fed with steam from the locomotive. The ends of the car are built up with heavy channel irons and "I" beams, covered with steel plates, producing a most excellent type of anti-telescoping construction.

Their strength surpasses that of all steel cars heretofore built. It is anticipated that this style of mail-car will be a source of safety to the remainder of the train in case of derailments or accidents. Wooden mail-cars are generally the first to catch fire in a wreck, thus destroying the rest of the train.

Around the Order-Book.

BY C. F. CARTER.]

Some Good Ones On Panhandle Dan, Shang Owens, Blue-Nosed Barry, Truthful Sam Swandibble, Handsome Harrigan, and Old Pop Hickenlooper.



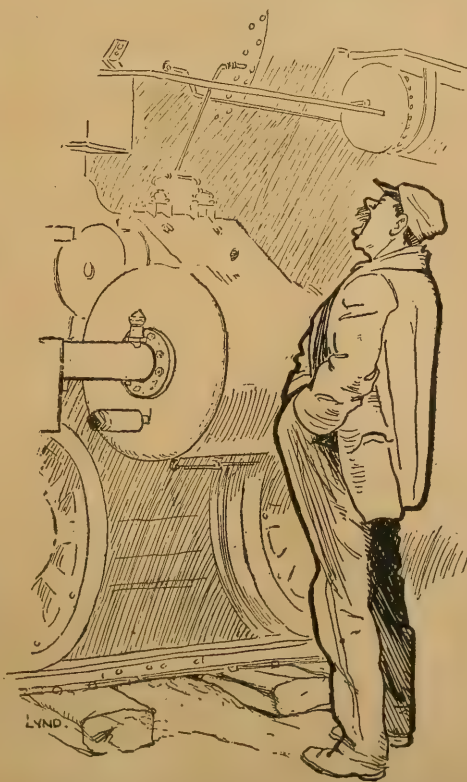
HEN Panhandle Dan went back to the desk to report that the 251's wedges needed setting up, he found Shang Owens, and Truthful Sam

Barry. "He told me last night he'd made an even hundred thousand miles with her without havin' her tires turned down, and he rather thinks he's entitled to wear the belt. Harrigan is a mighty good runner, anyhow."

Blue-Nosed Barry, Swandibble examining the order-book and discussing in earnest tones an entry therein, while Pete Peterson, the mechanic, was standing with one hand resting on the side rod of the 347, gazing at the end of her back damper with that air of profound deliberation which can only be attained by a roundhouse mechanic, and listening to the discussion.

"What you fellers doin' with that order-book?" demanded Panhandle Dan. "There ain't no pictures in it, and we all know you can't read."

"Handsome Harrigan has reported the 248 for the back shop at last," replied Blue-Nosed

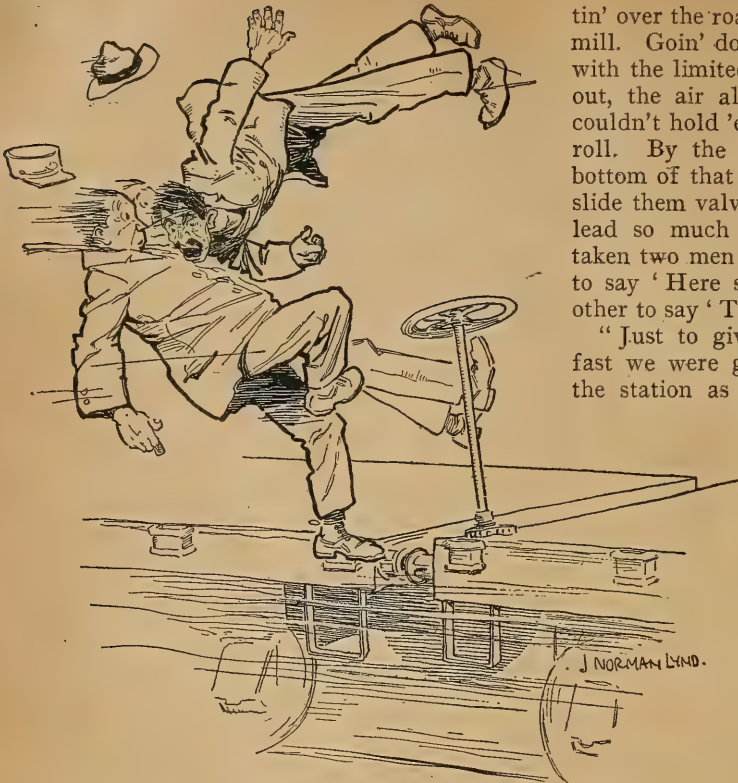


"THAT MAN USED TO GO OUT EVERY NIGHT JUST BEFORE HE TURNED IN, AND SING 'ROCK-A-BY, BABY, IN THE TREE-TOP' TO HIS OLD MILL."

"I could mention some men on this division, if I wanted to, that can't run an engine forty thousand miles before she has double flanges on 'er two inches deep," declared Shang Owens.

"It's all in the way he's got his valves set," put in Truthful Sam. "Harrigan sets his valves himself. He says—"

"Say! You and Harrigan give me a crimp in the epigastrium with your everlastin' twaddle about valve settin'," interrupted Panhandle Dan. "If I had a blind boy who couldn't set a valve on a dark night with one hand tied, and do a better job than has been turned out on this division recently I'd trade him for



"SLAMMED HIM BACK AGAINST THE TWO BRAKEMEN, BIFF!"

a stuffed club and beat my brains out with it."

"Ay tank yo' bater geev ope yo' run queeck an' take a job as mechanic, Meester Murphy, if yo' are so handy about valve-satein'!" exclaimed Pete Peterson with great asperity. "Anny man w'at's crippled in de hade can run an engine; but it takes brains to keep von in order, especially engines dat are handled like de two-feefty-von."

"What I say about valve-settin' goes, Pete," replied Panhandle Dan. "And, even at that, the 251 has never had her valves set right since I've had her."

Pretty Husky Valves.

"Say! Do you know what you did to them valves the last time you monkeyed with them, Pete? I'll tell you what you did: you gave her so much lead that the valves were about three revolutions ahead of the piston all the time, and a heap more than that goin' down-hill."

"I certainly did have a fierce time get-

tin' over the road at all with the old mill. Goin' down the Oakland hill with the limited, my air-pump gave out, the air all leaked out, and I couldn't hold 'em. I had to let 'em roll. By the time we got to the bottom of that four-mile toboggan-slide them valves had increased her lead so much that it would have taken two men to see us go by, one to say 'Here she comes!' and the other to say 'There she goes!'

"Just to give you an idea how fast we were goin', I whistled for the station as usual. We ran by about six train lengths on account of havin' to make a hand-stop, backed up, made the station-stop, fixed the air-pump, and pulled out, and had got as far as the water-tank before the sound of the whistle got to Oakland.

"That reminds me of Old Bill Gallagher's ride down Cimarron Hill," said Blue-Nosed Barry. "The last summer Old Bill was on the Denver and Rio Grande he was pullin' Old Pop Hickenlooper on a work-train. There was a pair of cranks for you. Each one was so darned cranky you couldn't live in the same State with him.

"Old Bill" and "Old Pop."

"Old Bill's fireman used to duck his head every time he stooped over to put in a fire from force of habit, he was so used to havin' Old Bill kick at him. And whenever the brakemen wanted to know anything about their work, they used to drop Old Pop Hickenlooper a postal-card.

"Old Bill was perfectly dotty about his engine. He was eternally fussing about the old mill. He couldn't run her half a mile without stoppin' to oil round. He would steal oil for her from the other engines, besides using about three times as much as any other man used that he

got on requisition. He wouldn't crowd her over eight miles an hour for fear of heating her brasses, and he simply wouldn't pull a full train.

"Him and the fireman had a regular Kilkenny-cat fight one day because Old Bill insisted on the fireman gettin' down and pushin' to help the old mill over a little rise. When he was out on the road with the work-train that man actually used to go out every night just before he turned in and sing 'Rock-a-by, Baby, in the Tree-top' to his old mill.

"Pop Hickenlooper's principal bug was a feather bed that he carried in the caboose. He slept nineteen hours of the twenty-four and left the brakemen to run the train, so, you see, he was in a position to appreciate a soft bed—which he did.

"Them two old cranks, strange to say, were cronies. It must have been because cussedness, like misery, likes company. Old Bill would babble about his engine, and Pop Hickenlooper would drool about his feather-bed, neither payin' the slightest attention to what the other was sayin', and so they got along fine. They certainly did flock together a whole lot up to the time they came down the Cimarron Hill.

"Any of you fellers that have been over the Denver and Rio Grande knows that comin' down the Cimarron cañon is like fallin' down a well. Pop Hickenlooper was at the Summit one day when he got a 'can have' to Gunnison. The orders didn't allow any time for pickin' flowers, so they started right down the cañon, with Old Bill grumblin' as usual because his darling old mill would have to turn her wheels so fast.

"He had a string of a dozen empty flats, with a hundred Italian shovelers for passengers. Old Bill

worked steam a little till he'd got 'em a rollin' nicely; then he shut off, stretched himself out on the seat-box, and prepared for a comfortable ride, expectin', of course, that the brakemen would do the rest.

"This was in the good old days of the Armstrong brake, you see. He didn't take much notice until he saw a juniper-bush on the rocks close beside the track bend violently over in the direction he was goin', as no bush ever does except in a violent wind. Then he yelped for brakes.

"Did anybody ever see a flat-car anywhere that ever had a brake in good order? I never did. The only response to



"GRABBED POP'S OWN PARTICULAR
FEATHER-BED IN BOTH ARMS."

Bill's call for brakes was an extra spurt as them ornery flats dropped down over a little pitch. Old Bill let out another yelp and looked back to see why it wasn't responded to.

"He saw the two brakemen on the caboose platform, both swingin' on the caboose brake, the only one on the whole train that would hold two ounces, with Pop Hickenlooper standin' in the door, watchin' 'em with his eyes stickin' out till you could have used 'em for hat-pegs.

"By this time they were goin' so fast that the wind picked up one of the light-weight Italians and slammed him back against the two brakemen, biff! They all fell off. Old Bill kept yelpin' for brakes and givin' her sand, while the fireman made the greatest effort of his life with the tank-brake. Another Italian was picked up by the wind and carried off, followed by another and another until the train was depopulated.

"By this time the train was moving so swift that it cracked like the snapper on a whip every time it went around a reverse curve. The wheels were spinning so fast that the humming they made was keyed up to a pitch as shrill as the song of a mosquito. In their wake was an odor of scorching wood, caused by the friction on them old flats.

"They probably would have busted out into a blaze if it hadn't been for the creek. The road followed every bend of the creek within three feet of the water, just like all mountain roads do. That train was goin' so fast that the suction just picked all the water up bodily and eddied it around over them flats, keepin' 'em thoroughly drenched, and so preventin' a fire.

Violating Rule 20.

"About this time the fireman gave up his endeavors with the tank-brake, lit a cigarette, fished up his time-card out of his seat-box, read the reverse side till he found rule 20. He put his thumb under the place and held it so Bill could read:

"Work-trains must not exceed fifteen miles an hour."

"That made Old Bill so mad he couldn't speak. He sputtered, but only got purple in the face. I guess the blood must have rushed to his head so hard on

account of the passion he was in that the extra weight kind o' threw the machine off her balance. Anyway, when she struck the next curve she trembled a bit, then hopped down off the rails, and went bumpety-bump along on the ties.

"Old Bill was frantic. He had a photograph in his mind's eye of his pet toppling over on the cruel rocks and gettin' all mussed up. He jumped down on the deck, clenched his hands, and yelled.

A Bed to Fall On.

"Then he gave the most marvelous exhibition of presence of mind that has been witnessed since railroads were invented.

"Quicker than a cat he whirled, went up over the coal in the tank on all fours, sprinted back over them flats, bowled over Pop Hickenlooper, who was still standin' in the door with his eyes bulgin' at the scenery; tore madly into the caboose, grabbed Pop's own particular feather-bed in both arms, bulged through the door with it, and sprinted ahead to where he thought the engine was due to topple over.

"There he kicked away the rocks, spread that feather-bed down, and smoothed it off nicely. He had barely time to get things ready when up comes his pet, bumpin' over the ties, balances on two wheels a minute, and then lays gently down on that feather-bed like a chicken goin' to roost.

"Everything would have been lovely if one of the keys in her side rod hadn't caught in the bed-tick and tore it so that about a handful of feathers oozed out. Old Bill was willing to apologize to Pop Hickenlooper about them feathers, and do what he could to square things, until he found that a pin Pop had used to fasten piller-shams to the bed-tick, and had carelessly left stickin' in the tick, had scratched the side of the cab.

"He never forgave Pop for his recklessness about that pin; and Pop, on his part, carried murder in his heart toward Old Bill on account of the shameful way he had used his feather-bed."

"Now, then, if you gents'll kindly disperse a little," said Panhandle Dan briskly, "I'd like to take my pen in hand and indite a few choice thoughts in that there order-book."



DAD ALLEN LETS 'EM ROLL.

BY E. E. JENNINGS.

**Force of Habit Made Him Forget His Old
Teapot Didn't Carry Anything But Hand-Brakes.**



HE usual crowd had gathered in the C. and St. J. roundhouse at Craigville. I should say the usual "jolly" crowd, for pay-day had come round once more, and one and all, from wiper to passenger engineer, were killing time in various ways while waiting the arrival of the band-wagon.

Several yarns had been spun, and a few arguments had taken place, when Dad Allen, veteran engineer of the line, suddenly leaned forward in his chair and knocked the ashes out of his pipe on the heel of his boot. This was always a sure sign that Dad was about due to open up, and invariably caused the same condition of silence and attention that are seen in court when the judge raps for order; for Dad was a rare entertainer. No engineer on the system had more close calls.

The old man reached in his pocket, produced his knife and tobacco, started to fill up his corn-cob again, and then began:

"Listening to you boys kick because all freight-cars ain't equipped with air-brakes yet, reminds me of a little mix-up I once had on the Kilmorna Hill. It wasn't because the cars weren't all equipped for air, but I'll tell you about it, just to show you what force of habit will do for a man at times.

"It was in the fall of 1887 that this happened, and it was in the spring of 1888 that I got my job back, after various officials had failed to discover the real reason why the 'Chicago Bullet' ran away on the Kilmorna Hill.

"All the better class of engines carried Westinghouse those days, but we had a few little dinkies that did yard-work and local business that the company did not think it worth while fitting up. When I came down to the roundhouse at Melton that morning, and found out that my engine, the 446, had been taken to double-head the snow-plow, I expressed my opinion of the locomotive foreman and other officials in no uncertain language.

"Some of the boys say there are blue streaks on the window-glass yet down in the Melton roundhouse, where my breath frosted the pane, but that must have occurred when I found out that I had to take the 171 out on the 'Bullet.'

"I knew the 171, and so did every man on the division, a little teapot that was pulled off the main line on account of poor steaming qualities, and I could see my finish trying to make time with a mill like that on the head-end of a beef-train. But there was nothing else in the roundhouse, and the superintendent's orders read: 'Start 55 out on time with engine 171.'

"Well, we got the yard-engine to give

us a shove out of Melton ward, and managed to get away on the dot; and I was beginning to hope that we would get a clear run over the division when, as we were nearing Lyndon, I saw the order-board out against me. I said a few things that wouldn't look well in print as I whistled for brakes, but I said more when we pulled up and got orders to meet extra 42 at Sherwood, that little flag-station at the foot of the Kilmorna Hill.

"I had figured on letting her go her own pace on that grade, but I knew that I could never let her out with twenty-two cars of dressed beef behind her and stop at Sherwood; however, when we hit the top of the hill, I thought that I would let her go for half a mile and then give her the air, which would be safe enough, as I had done it dozens of times with the 446; and right here is where force of habit caused me to make the biggest bull I ever made on an engine.

"When I thought it was about time to slow up I reached for the handle of the air-controller, only to discover that I had forgotten that there was no air on this engine. There we were, splitting the wind at about fifty per, with nothing but hand-brakes behind us and two green brakemen in the caboose.

"I whistled brakes, threw her over, and gave her the sand, but it didn't do much good. I looked back over the train, and could see one man crawling over the running-board of the car ahead of the dog-house on his hands and knees, just about ready to grab anything with his

teeth that might help him to hold on, while the other 'Jasper' seemed to be afraid the cupola might blow off the caboose, for he was sure holding it on tight.

"Thinks I to myself, we're in a deuce of a fix if Stewart isn't in the clear at Sherwood, for by this time even air wouldn't have held us up. When we rounded the curve near the west semaphore, I could see Stewart pulling in the siding at the east end switch, and I knew for certain that he wouldn't get in clear in time.

"I whistled as long as I dared stay with her, and then I yelled to my fireman, 'Come on, son!' and we both lit out for the deep snow, which, thanks be, was plentiful.

"The 171 side-wiped the fifth car ahead of Stewart's caboose, but by good luck they had heard us whistling, and had time to hike out of the caboose and over the fence clear of the pile-up.

"It took the auxiliary three days to clear up the mess; but it took the officials over three months trying to clear up the cause, which they didn't, or I wouldn't be here with you fellows now. They put it down at last to bad rail, small engine, and heavy train, but it cost me three months' pay to convince them to this effect and get reinstated; but, boys, to this day I can't see how in creation I came to forget that I wasn't carrying air right after stopping at Lyndon with hand-brakes.

"It just goes to show what force of— Say, boys, there's the band-wagon pulling in on track 7. Come on, and get in ahead of Murphy and the bridge-gang."

THE SMALLEST ENGINE.

TINY TIM is the name of the smallest engine in the world. It is made of gold and steel, and is so small that a common housefly seems large in comparison. It weighs just four grains complete, which is the weight of an ordinary match. It takes over 100 such engines to weigh one ounce, almost 2,000 to weigh a pound, and more than 3,000,000 to weigh a ton.

The engine-bed and stand are of gold. The shaft runs in hardened and ground steel bearings inserted in the gold bed. These bearings are counter-bored from the inside to form a self-oiling bearing. The fly-wheel has a steel center and arms, with a gold rim,

and the complete wheel weighs one grain. The cylinder is of steel, with octagonal base, highly polished.

The stroke is 1-32 of an inch bore, 3-100 of an inch. Seventeen pieces are used in the construction of this engine.

The speed of the engine is 6,000 revolutions per minute. When running 100 per second no motion is visible to the eye, but it makes a noise like the noise of a mosquito. The horse-power is 1-489,000 of one horse-power. Compressed air is used to run it; and it may be of interest to note that the amount required to make it hum can easily be borne on the eyeball without winking.

WITHOUT LIGHTS.

BY J. AUBREY TYSON,

Author of "The Man of Straw," "A Railway Pizarro," "The Man Who Lost Himself," etc.

A Woman's Hinted Suspicion Par- alyzes a Strong Man's Purpose.

SYNOPSIS OF PREVIOUS CHAPTERS.

FRED ERSKINE waits upon the general manager of the Chicago, St. Louis and Western Railroad, Andrew Warrington, with a letter of introduction from his father, who, in the old days, was engineer on the engine Warrington fired. It is understood that when Fred has completed his college and Altoona course, Warrington will place him. He now finds that he is unable to do so, his own position being in considerable doubt. Bonds of the value of half a million dollars have been stolen, and suspicion points toward Warrington's son, though the matter is still kept quiet. Warrington, senior, is suspicious of the motives of an Englishman named Montresor, who has gained the friendship of Joe Warrington, and apparently of Louise, Warrington's daughter. The old man gives the task of solving the disappearance of the bonds, and of returning them secretly to the safe, to Erskine. He is to work absolutely in the dark, receiving no recognition from Warrington, using any means he wishes. He is to take Louise to the opera that night; but Louise, suspecting him, has the coachman drive to Lincoln Park, and there Fred is assaulted by a man whom he believes to be Montresor. Erskine is walking on the lake shore, thinking over the situation, when he meets a man who proves to be the discharged coachman of the Warringtons. He is very loyal to Miss Warrington, and this has resulted in his discharge. Erskine succeeds in convincing him that he is Miss Warrington's friend, and the coachman agrees to work with him. Other men arrive, and Erskine gathers that it is their intention to keep a rendezvous with young Warrington and then kill him. He meets the young fellow, who agrees to confide in him, but as Erskine leads the way from the shore, he is startled by a piercing shriek.

CHAPTER IX.

An Untold Story.



OR only a moment did Fred Erskine hesitate. The shriek that had rung in his ears scarcely had died away when the Altoona man set off at full speed in the direction of the sea-wall he had left behind him less than a minute before.

Arriving at the wall, he leaned over and listened. From a point on the beach several paces to his right came the sounds of sharply spoken words, which were too quietly uttered to be intelligible to him. These were followed by a shuffling of feet, a splashing of water,

and the quick regular clicking of metal oar-locks.

"McGrane!" Erskine called.

To this call there was no reply. Then Erskine cried the coachman's name again. This time there came to his ears a low groan, closely followed by a sturdily muttered curse.

"Is that you, McGrane?" demanded Erskine, as he prepared to vault over the wall.

"Yes — yes! In God's name, come quick."

A moment later Erskine was on the beach. The sounds of the oar-locks were growing fainter, and as the young man listened these were the only sounds he heard.

"Where are you, Barney?" he called,

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after he had vainly attempted to make out the figure of the coachman in the darkness.

"Here, sir—here," came the voice of McGrane, and as the coachman spoke, Erskine heard the sound of shifting stones.

"What has happened, Barney?" demanded Erskine anxiously.

"Oh, the sneakin', murderin' devils!" exclaimed the coachman breathlessly.

"Just as I was finishin' off the black-guard with the knife another knocked me—Barney McGrane—off my pins for the first time in my life. Oh, when I get my hands on—oh, sir, when—but Mr. Joseph—what's become of Mr. Joseph?"

Erskine raised his voice. "Warrington!" he called.

"In Heaven's name, what's this?"

In the darkness the coachman had stumbled upon the figure of a man who was lying on the beach.

"By all that's holy, sir, it's—it's Mr. Joseph!" exclaimed McGrane.

A moment later Erskine and the coachman were kneeling beside the prostrate form of young Warrington. As Erskine groped for the wrist of the stricken man, Joe Warrington's fingers closed feebly over his hand. The fingers seemed strangely stiff and chill, and Erskine shuddered.

"Are you injured, Mr. Warrington?" Erskine asked anxiously.

"Yes—yes—they've finished me," the other answered weakly.

Erskine started to rise. "Come, McGrane, let's get him over to the house," he said.

The grasp of the prostrate man grew tighter. "No—no—don't go," he murmured. "They've knifed me, and I'm done. There is no time to take me anywhere, and—"

"Who assaulted you?" Erskine asked. "It was one of Montresor's crowd, I know, but—"

"It was too dark to see," Joe Warrington replied, "but there is no time now to talk of that. You have said that you are working in my father's interest and mine, and I believe what you have said to me. You know Montresor had the bonds, and you say that he—has he lost them?"

"No. He has sent them somewhere by express—to Tacoma, I believe. I must get after them to-night. They are said to be in some kind of a machine-box. Do you know what is meant by that?"

"May God forgive me—yes," muttered the dying man. "It is a box which contained an Anixell typewriting machine—a wooden box, marked with the name of the manufacturer—a box which stood for several days in the office of the treasurer of the company. It contained the missing bonds at the time they were delivered to Montresor."

"Do you know to whom the box is addressed at Tacoma?"

"I did not know that it was to be delivered to any one in Tacoma."

There was a pause, then Erskine asked: "And is this all you have to tell me?"

Joe coughed weakly and a little groan escaped his lips.

Erskine leaned lower.

"What are the names of his confederates?" he queried.

"By stealth—by stealth, you said," the dying man whispered, and the fingers that held Erskine's hand tightened their grasp. "If you do this—Louise—Louise—"

He stopped. "Yes, yes, but—" Erskine began.

A faint choking sound came from Joe's throat.

"If you do this—" he repeated, but could get no further.

"Shall I get Miss Warrington?" asked McGrane.

"She is not at home," Erskine reminded him. "But, perhaps—"

"Stop!" whispered young Warrington. "I must tell—you must remember—twenty-six eighty-nine—fifth proverbs—twenty-two—twenty-three—nineteen thousand and forty-seven."

For a moment Erskine fancied that the whispering man was speaking incoherently, then a new thought struck him, and, starting violently, he said:

"Again!"

Deliberately, but more faintly than before, Joseph Warrington whispered: "Twenty-six eighty-nine—last two of the fifth—nineteen thousand and forty-seven."

Slowly and distinctly Erskine repeated the words.

"Yes—yes—remember," sighed the stricken man.

Perspiration now was standing in beads on Erskine's forehead as he asked: "But your—Montresor's confederate? Tell me?"

He paused for an answer, but Warrington was silent. "Your sister is not—" Erskine began, but stopped.

"Ah, Louise—poor Louise!"

"You do not mean that your sister—"

Warrington tightened his grip on Erskine's hand.

"She must not know," the dying man murmured hoarsely. "You have said that by stealth—by stealth—my honor and my father's—"

He stiffened suddenly and the hand that was holding Erskine's relaxed its grasp and fell to the stony beach on which he lay.

"Shall I get a doctor, sir?" Barney asked.

"It's too late now," Erskine answered, like a man in a dream.

"He isn't dead?" exclaimed McGrane, in horrified accents.

"He's dead," said Erskine, rising.

"Then, sir, we must take him to the house."

"No. The body must lie here until it is viewed by the coroner."

"But his father—we must tell Mr. Warrington what has happened."

"No. The body will be identified easily enough, and his father will be informed. It is best that we do nothing further in regard to this matter to-night."

An exclamation of amazement escaped the coachman's lips.

"And you'd let him—him as was Mr. Andrew Warrington's son—lie for hours like a dead dog out here beside the lake!" McGrane said angrily.

"No further harm can come to him now," Erskine answered gravely.

"And Montresor—Montresor, who murdered him?" demanded the coachman. "Are you going to let Montresor get a better start on the police than he's got already?"

"The police must not get Montresor until after we get something Montresor has had in his possession. You have heard

me make a promise to the man who came to his death at Montresor's hands.

"That promise must be kept; but it cannot be kept if Montresor is arrested, or if you and I are compelled to remain in Chicago to-morrow to appear as witnesses in this case. In the dead man's interest, and in his father's as well, we have another account to square with Montresor. In order to do this, we must take a train for the West to-night."

"We are going after Montresor?"

"If it is possible, we must go before him to the place at which we are to call him to account for injuries which members of the Warrington family have suffered at his hands."

"But I don't understand, sir, how—"

"It is unnecessary that you should understand anything more than that Montresor is planning to obtain possession of something which we must get—something which was responsible for the death of Joseph Warrington to-night. I will lead the way, but you must remember that when you entered my employ a few minutes ago, you promised that you would ask no questions.

"I, too, have given a similar promise to some one else. There is a hard fight ahead of us, Barney, and some of it is going to be in the dark, but we must stand together and be able to trust each other absolutely."

"We've got to fight, then, without knowin' what it is we're fightin' for?"

"Yes, Barney. Both of us are under sealed orders."

The coachman hesitated. "Well, sir, if it's a fight we're goin' into, and the feller we have to fight is Montresor, Barney McGrane is the man for the work, and he won't be pesterin' you with questions," he said.

"Come, then," Erskine directed with a ring of impatience in his voice.

Just as the two men were in the act of crossing Lake Shore Drive, a coupé, swiftly rounding a corner below them, headed northward, and, as it did so, the driver reined in his horse in a manner that caused it to proceed at a slow canter. Erskine and his companion were in the middle of the roadway when the vehicle passed them.

Erskine drew back suddenly, and a low, incoherent expression fell from the lips of McGrane. The occupant of the coupé

had been recognized by both. It was Louise Warrington!

CHAPTER X.

A Crossing of Trails.

"**W**APITI FALLS, the next stop—
next stop, Wapiti Falls!"

As this call rang through the train, Barney McGrane saw a faintly perceptible expression of grimness settle in the eyes and around the lips of his new employer, who for the last two hours had appeared to be absorbed in the perusal of a paper novel.

A moment later the glances of the two men met. Erskine smiled slightly, laid his book aside, thrust his hands into his pockets, stretched himself, and looked out of the window.

Barney McGrane never had deluded himself with the idea that he was adept at mind-reading, and if he had, his lack of success in studying the features of Erskine, with whom he had been traveling for the greater part of two days, might well have discouraged him. The face of the Altoona man had been like a mask; but in the eyes of this dogged enemy of Montresor's there was a glint that never died away, and it pleased the Irishman to see it there.

During the greater part of this long journey, Erskine had had little to say. When he did speak, however, his words and manner were cheerful enough; but not once had he spoken of the quest in which he was engaged, or of the death of Joseph Warrington.

To the speculative McGrane, only one thing was clear. The ticket he carried had given him to understand that their destination was Wapiti Falls, and he remembered that while he and Erskine had stood together beside Lake Michigan, just prior to the appearance of Joseph Warrington, he had heard Montresor say to the man he called Slevin something of this town which the train was now approaching. He had failed, however, to grasp the significance of the speech.

As Erskine looked out of the window, a feeling of apprehension suddenly began to steal over him. Was it not possible, after all, that he had been following a false trail? In the darkness, on the beach,

he had heard Montresor say to Slevin that the Inter-State had "the paper," and that it transferred "to the Dale" at Wapiti Falls. He knew that the Inter-State and the Dale were express companies. But was "the paper" that had been mentioned something else than the missing bonds?

This doubt was sufficiently disquieting of itself, but there was another that harassed him. If "the paper" should consist of the bonds he sought, would it be possible for him to obtain possession of them by means of the desperate plan that he had formulated?

Of the one thousand dollars which he had received from Andrew Warrington he had spent less than one hundred and fifty, and the remainder was now in a wallet in an inside pocket of his vest. Large as this sum would have seemed to him only a few days before, he wondered whether it would suffice for the work that had been cut out for him.

The Altoona man's thoughts were not altogether occupied with the task that confronted him, however. After leaving Chicago he had been haunted by a fear that he had done wrong in failing to report to Andrew Warrington concerning the manner in which his son had met his death. Despite Warrington's injunction to refrain from offering any report on the progress he was making in his quest, Erskine felt that he had taken the general manager a little too literally.

It was plain that Warrington was convinced that his son was indeed guilty of the act with which he had been charged, and that, though harboring this suspicion, he was determined that no evidence of his son's complicity in the affair should be submitted to him by the man to whom he had assigned the task of recovering the bonds. It was also clear that the elder Warrington suspected that his son had been in some sort of a conspiracy with Montresor.

But did he know enough of the nature of this conspiracy to lead him to suspect that Montresor had designs on Joseph's life? By this time the general manager knew that his son had been slain, and it was only natural that he should do all in his power to aid the police in their search for his murderer.

Oftentimes, as Erskine asked himself these questions, he would become con-

scious of a sudden sinking feeling that brought with it some of the sensations of a nightmare, and at these times his thoughts were of Louise Warrington. Was Andrew Warrington's daughter also in league with Montresor? Did she now suspect that the man into whose hands she had delivered Erskine in Lincoln Park was no other than the slayer of her brother? The very thought was monstrous! And yet the fingers of accusing circumstances pointed directly to her.

Hour after hour the memory of this extraordinary young woman haunted him. Beautiful as she had been when she had first appeared to him in her father's house, it was not in this aspect that she kept reappearing to his fancy.

He remembered best the dark profile beside him in the carriage, and the white face he had seen peering out at him from the coupé window while he and McGrane had been crossing the Lake Shore Drive together, near the Warrington house, a few minutes after the death of her brother Joseph.

Erskine looked with unseeing eyes toward the changing mountain scenes by which the swiftly moving train was passing. Then he turned to McGrane, who still sat facing him.

"Come over here, Barney," he said quietly.

The Irishman seated himself at Erskine's side.

"Barney," Erskine went on, "in three-quarters of an hour we shall leave the train at Wapiti Falls. How soon we shall get away from there I don't know, but while we are at the place we must keep as well out of sight as possible. It is not unlikely that we shall see there some one whom both of us have seen before.

"If we do so, keep your head, and prevent him from seeing you. If he sees you or me, it is probable that our long journey out here will have been made in vain. Is this clear to you?"

"Yes, sir," replied the Irishman, moving uneasily as he spoke. "But suppose the blackguard gets away?"

"Don't let the thought of that trouble you, Barney," said Erskine reassuringly. "He will get away from there without any hindrance from us; but, if all goes well, we will be off ahead of him.

"It is not at Wapiti Falls that I ex-

pect to land him, but it will be at Wapiti Falls that we must shape ourselves for the fight which we will have to put up within the next twenty-four hours—a fight which, unless we play our cards pretty carefully, is likely to have far more serious consequences for both of us than you can possibly imagine."

"I ain't thinkin' of no consequences, Mr. Erskine, so long as we can get our hooks into the sneakin' whelp we are after," answered McGrane with a shrug of his broad shoulders. "But what kind of a fight is it like to be, sir?"

"Well, we might be so hard put to it that we will be compelled to use almost anything that we may find handy for our purpose," said the Altoona man thoughtfully.

"There's guns in your suit-case," suggested McGrane, now venturing to speak for the first time of a subject which, heretofore, he thought it desirable to avoid.

"True," Erskine assented. "You are familiar with the use of a revolver, I believe."

"I've served with the British army in India," responded McGrane.

"So you've told me. But the revolver I am going to give to you is loaded only with blank cartridges."

"With blanks!" exclaimed the Irishman, disappointed.

"That's all; and when the time comes for you to use them, I think you will find that they are the only sort that you will require. I scarcely think that you will have an opportunity to get a shot at Montresor."

"Then there ain't goin' to be no real fight, after all?" muttered McGrane in an aggrieved tone.

"Oh, yes. I'm afraid that we'll have about fifty-seven varieties of fight before we finish the business we have ahead of us; but in the end you will admit that we will have done well to begin with blank cartridges."

The Irishman, looking open-mouthed through the window, nodded perfunctorily. It was plain that the prospect was not sufficiently sanguinary to conform with his idea of the fitness of things.

Wapiti Falls was reached at last; and as the train slowed down, Erskine and McGrane reached for their suit-cases and sauntered out to the platform of the car.

They were the first to alight; and, with his hat drawn well down over his eyes, Erskine, glancing sharply about him, led the way to the baggage-room.

Just outside this he paused, and, setting down his suit-case, looked toward one of the forward cars of the train from which he had just alighted. On the side of the car was painted the name: "Inter-State Express Company."

Despite the composure of his features, Erskine's heart was beating wildly as he saw the big door on the side of the car slowly open and a large truck draw up beneath it.

Package after package was transferred from the car to the truck, which, being filled at last, was drawn in the direction of the baggage-room. A moment later, however, a second truck was wheeled into place, and the hopes of Erskine revived only to die away again when a long, green canoe was thrust toward it from the car.

"Look, sir—for God's sake, look!" exclaimed McGrane as, with a trembling hand, he clutched Erskine's sleeve.

Startled by the horrified accents of his companion, Erskine followed the direction of his glance. Looking at him from a window of one of the Pullmans was the face of the young woman he had seen peering out of the coupé on the Lake Shore Drive shortly after Joseph Warrington had breathed his last—the face of the dead man's sister! A strange, hunted look was in her eyes, and her face was as gray as ashes.

That the young woman had seen and recognized him there could be no doubt. Why was she here? Where was Montresor?

CHAPTER XI.

Caught in the Whirlpool.

COMPLETELY bewildered by the sudden appearance of Louise Warrington, whom, until only a moment ago, he had believed to be still in Chicago, Erskine stared at her with dilated eyes. For a moment the young woman returned his gaze; then, with a quick movement, she disappeared from the window.

Slowly, Erskine's scattered wits came back to him again, and, as they did so, he suddenly became conscious of the danger

of his situation. Having seen and recognized him, Louise now would take advantage of the first opportunity that presented itself to communicate with Montresor, and thus put him on his guard.

Picking up the suit-case which he had set down on the platform of the station, Erskine turned to McGrane. "Come, Barney, we must get out of this," he said quietly.

The Irishman nodded, and was following Erskine into the baggage-room, when the Altoona man turned abruptly and glanced in the direction of the truck to which the green canoe had been transferred from the express-car. As he did so he saw that two of the truckmen were placing in the bottom of the canoe a square box that had rope handles at the ends.

Again, McGrane clutched Erskine's arm. "That's her, sir—gettin' out—with the veil!" the coachman whispered.

The eyes of the Altoona man did not shift their gaze from the box in the canoe.

"And—oh, Lord love us, sir—her mother's with her!" the astonished Irishman went on.

The truck containing the canoe and box was now being rolled in the direction of the baggage-room, near the door of which Erskine and his companion were standing.

"Don't let them get out of your sight, Barney," directed Erskine, in a low, husky voice.

"They're goin' to the waitin'-room," said McGrane.

Into the baggage-room now rolled the truck which Erskine had been watching. The searching gaze of the Altoona man was riveted on the box that lay in the canoe. At one end of the box he read the words, "Anxell Typewriter."

Erskine's heart was beating wildly, and perspiration broke out in large drops on his forehead. He was standing within six feet of the object of his quest! In one corner of the baggage-room was an office of the Dale Express Company, and toward this the truck was being drawn by two sturdy porters.

In a low voice Erskine addressed McGrane.

"Take a good look at that box in the canoe, Barney," he said. "When we land that we shall be ready for Montresor."

The Irishman, turning quickly, gazed

at the mysterious box with wondering eyes.

"Will you recognize it when you see it again?" Erskine asked.

McGrane nodded. "I think I will, sir," he answered dubiously.

"Then get to the waiting-room, and keep an eye on the women," directed Erskine. "Keep out of their sight, if you can; and, above all, don't let yourself be seen by Montresor."

In another moment the Irishman was gone. Erskine slowly sauntered after the truck, which finally came to a standstill near the Dale Company's office.

Leaning over the canoe, with an affectation of carelessness, Erskine read the address:

CHARLES FALQUIST, Heath House, Tacoma, Wash.

Having learned this the young man continued on until he came to the desk of the office. There he spoke to a clerk.

"On what train do you make your next shipment to Tacoma?" he asked.

"On the seven-forty, sir," answered the clerk.

"But that is not the first train from here to Tacoma," said Erskine, in a tone of surprise.

"The West Coast express leaves here at four-thirty, but the Cascade Limited passes it at Tyrcone, fifty miles the other side of the Dumb-bell, and arrives in Tacoma more than an hour earlier," explained the clerk.

Erskine nodded and, as he turned away, he looked at his watch. It was twenty minutes after four. The West Coast express would leave in ten minutes.

As carelessly as he appeared to have entered it, Erskine made his way out of the baggage-room. On the station platform he paused and looked around; then, assured that Montresor or the Warrington ladies were not in sight, he directed his steps toward the waiting-room. Just as he entered the door of this McGrane touched him on the arm.

"They're sittin' over yonder, in the corner," he explained.

"Have you seen Montresor?" Erskine asked.

"No, sir," replied the Irishman.

In the corner that McGrane had indicated Erskine saw a veiled woman sitting

beside a portly woman with white hair. He perceived also that from where the two women were sitting they were unable to command a view of one of the ticket windows.

To this window he accordingly made his way, and there purchased two tickets for Tacoma by the West Coast express. This done he returned to the station platform and took a position just outside the waiting-room door.

"Did you get the box, sir?" whispered the Irishman innocently.

"Not yet, Barney," replied the other, smiling grimly.

"Then we ain't ready yet for Montresor," McGrane muttered, with a sigh.

"Nearly ready, Barney," said Erskine.

From the east came a long, shrill whistle of an approaching locomotive. "This is our train, I guess," Erskine murmured.

The Irishman started, and darted a sharp glance toward the face of his companion. "We're leavin' Wapiti Falls?" he asked abruptly.

"Yes."

McGrane scowled. "The sight of Miss Warrington has changed your mind, then," he growled.

"No," Erskine replied. "We go with the box I pointed out to you. I have told you that not until we get possession of that box can we fight it out with Montresor."

"But Miss Warrington—what is Miss Warrington doing here?"

Erskine shrugged his shoulders. "That is her secret—and Montresor's," he answered gloomily.

The Irishman started, and looked at his companion quizzically.

"You ain't goin' to make any trouble for Miss Warrington?" he said doggedly.

"Not if we can convince her that it is in her interest to break away from Montresor."

A grayish pallor overspread the face of McGrane. "You—you don't think, sir, that Miss Warrington has come all the way out here to meet that murderin' Englishman?" he faltered.

"It looks like it, Barney."

"After what he's done to her brother?"

"It is probable that she does not know that Montresor is responsible for her brother's death."

"But she knows that Mr. Joseph is

dead; and, knowin' that, why wouldn't she wait over in Chicago until after the funeral?" asked the bewildered Irishman.

"The fact that she is here, and accompanied by her mother, indicates that they left Chicago before the body of young Warrington was found. It is apparent that they came on the same train that brought us here. This, as you will remember, left Chicago shortly after daylight."

McGrane nodded gloomily. Then, after a pause, he said: "That looks likely enough, sir. But if we was to tell them that Mr. Joseph is dead, and how it all happened, don't you suppose that would be enough to make Miss Warrington break away from Montresor?"

"They would insist on some corroboration of our story, and an hour or more might elapse before they would succeed in obtaining this. We cannot afford to wait. Of one thing, however, we may be sure. Miss Warrington and her mother are going the way of the box which, within the next twenty-four hours, must be in our possession. That way is ours, and it is not improbable that we shall have the two ladies as fellow passengers."

As Erskine finished speaking the West Coast express slowed down at the station platform. With his ticket and berth checks in one hand, and his suit-case in the other, Erskine hurried toward the train, with McGrane at his heels. A porter conducted them to the section which Erskine had engaged.

As they seated themselves both men glanced out of a window that commanded a view of the station platform. A moment later they saw Miss Warrington and her mother leave the waiting-room and move quickly toward the train. Miss Warrington, who still wore her veil, glanced from right to left, but whether she was looking for Erskine and his companion, or for Montresor, was a matter of conjecture so far as the Altoona man was concerned.

In less than half a minute the young woman had again disappeared from Erskine's view, and he doubted not that she was ascending the steps to the platform of the car. Rising abruptly, he made his way to the rear of the car in which he had been seated.

He had taken only a few paces, however, when he saw her just before she dis-

appeared in the stateroom at the end of the car. Satisfied that she was indeed on the train, Erskine returned to his seat.

As he sat down the Irishman looked at him interrogatively. Erskine nodded, but did not speak. McGrane compressed his lips and looked out of the window. With the exceptions of Erskine, McGrane, and the two women who had entered the stateroom, all the other occupants of the car had been on the train at the time it arrived at Wapiti Falls.

Five minutes after Erskine returned to his seat the train drew out of the station. As it did so McGrane, who occupied the front seat, leaned forward and addressed Erskine, who sat facing him.

"Ain't seen him yet?" the Irishman asked, in a hoarse whisper.

Erskine shook his head. McGrane sank back dejectedly. The younger man then took from his pocket a time-table which he had been studying at various times while he was riding between Chicago and Wapiti Falls. After looking this over for several minutes, he glanced out of the window, then rose abruptly.

"I'll be back in a few minutes, Barney," he said shortly.

A moment later he was standing before the closed door of the stateroom which he had seen Miss Warrington enter. After a brief period of hesitation he set his lips firmly and knocked.

CHAPTER XII.

A Sinister Shadow.

WITH a rapidly beating heart, Erskine waited for an answer to his knock. This was so long in coming that he was about to knock again when the door opened and Louise Warrington, with her veil thrown back, stood before him. The young woman's face was very pale, her eyes were red, and there were dark circles under her eyes.

Erskine had expected that the young woman would receive him with some manifestation of surprise. On the contrary, however, he found her singularly self-possessed. For several seconds she regarded him gravely, then, in a low, quiet voice, she said:

"Come in."

Erskine bowed, entered, and closed the

door behind him. Louise seated herself beside her mother, who surveyed Erskine coldly. The young woman looked out of the window.

As Erskine stood awkwardly just inside the closed door, the train rounded a curve so quickly that the young man almost lost his footing. He quickly recovered his equilibrium and, addressing Mrs. Warrington, he asked:

"May I sit down?"

Ignoring the question, Mrs. Warrington turned toward the window, as her daughter had done. Erskine flushed painfully. It was plain that both ladies resented his intrusion, and were not disposed to converse with him. Doubtless, Louise believed him to be nothing more than an ordinary detective, who had been assigned by her father to watch her movements.

If this were so he scarcely could charge her with lack of courtesy. It was manifestly impossible for him to carry on conversation while trying to maintain his balance in a swaying car; so, reluctantly enough, he dropped his hat in the vacant seat opposite Mrs. Warrington and her daughter, and sat down beside it. For more than a minute the silence was unbroken. Erskine was the first to speak.

"I am sorry to intrude upon you in this manner, Miss Warrington, but circumstances compel me to do so—in the interest of both of us," he said.

"I am not aware, sir, that we have any interest in common," the young woman answered frigidly, and without turning her head.

"I think that when you come to know me better that you will recognize the fact that, in some respects, at least, we have several interests in common," said Erskine gravely.

"I have no desire to know you better, sir," retorted the young woman, now flashing toward him a glance in which resentment and contempt were blended.

"It will be well, however, for you to hear something which I have come here to tell you."

Louise shrugged her shoulders. "Only a matter of considerable importance would justify your presence here," she answered shortly.

"I am quite aware of that," said Erskine, flushing. "But, in speaking of it, I should like to feel that I am not mis-

understood. It will be better, therefore, for me to put you in the way of learning from others something which you probably would not credit were you to hear it from me."

Louise looked at him quizzically. "To what 'others' do you refer?"

"To your father, or any of your intimate friends who are not under the influence of Mr. Montresor."

The young woman flushed angrily, and looked at Erskine steadfastly, saying:

"Your meaning is so obscure that I'm afraid I cannot grasp it. What is it that you are so disposed to put me in the way to hear?"

"The report of a misfortune that has befallen your brother."

The young woman started violently, and a stricken look came into her eyes. Her mother gave utterance to a little cry and, facing Erskine, impulsively grasped her daughter's hand.

"What misfortune has befallen my son?" Mrs. Warrington demanded.

And now Erskine suddenly realized that he had blundered. He knew that this revelation should not have been made until after he should have attempted to win the confidence of the two women by other means.

"Well, sir, why do you not speak?" the elder woman asked impatiently.

"I should advise you to telegraph to Mr. Warrington, asking him if anything has happened to your son," said Erskine.

"I have not asked you for advice," Mrs. Warrington retorted. "You profess to know that something has happened to him. Tell me what it is."

Again Erskine hesitated. Louise laid a hand on her mother's shoulder.

"Do not let this man alarm you, mother," the younger woman said reassuringly. "He has been paid to spy upon us, and thus far he has succeeded. Now, in order to compel us to turn back to Chicago, he is trying to make us believe that something serious has happened to Joe."

"He is only a detective, mother, and it is the practise of detectives to lie whenever they think a lie will aid them in attaining their ends. This man has planned the thing with father, who, if we telegraph to him, will reply, of course, that Joe is in trouble, and that we must return at once."

"You have said enough, Miss Warring-

ton, and I will leave you," he answered, in a voice that shook a little. "Before I go, however, it is only fair to explain that the man who was introduced to you by your father as you were preparing to go to the opera was not a professional detective, nor was he one who willingly undertook the task on which he is now engaged—a task which he little thought would expose him to your enmity."

"These explanations are quite unnecessary," Louise answered coldly.

"Nevertheless, I am determined to make this one," said Erskine doggedly. "You are right when you infer that my introduction to you by your father was for the purpose of affording me an opportunity to meet Mr. Montresor."

"You found that opportunity, I believe," retorted Louise.

Erskine colored slightly, but, as gravely as before, he answered: "Yes, and had it not been for that meeting I should not be here to-day; so, despite the assault that was made upon me on that evening, I have much to thank you for. You are wrong, however, in assuming that it is part of my duty to keep you and your mother under surveillance.

"Our meeting at the station which we have just left was quite accidental."

"Accidental!" Louise exclaimed incredulously. "Do you ask me to believe that you did not follow me to the train which brought me to Wapiti Falls?"

"Whether I followed or preceded you to that train I do not know. I certainly had no suspicion that you were on it until I saw you at Wapiti Falls."

"Then why are you here?"

Steadily returning the half-mocking, half-defiant gaze of the young woman who confronted him, Erskine hesitated, then his white face grew more tense as in a low, deliberate voice he answered her:

"I am here to save from disgrace every member of the family whose name you bear, and to bring to the bar of justice the man who robbed, then murdered, your brother!"

With a cry of horror, Mrs. Warrington half rose from her seat. Louise, scarcely less agitated than her mother, seized her arm and drew her back.

"Murdered?" the elder woman whispered hoarsely.

"When?" demanded Louise, in whose eyes was an expression of incredulity.

"Just before you saw me crossing the Drive, in front of your house—while you were returning from—the opera."

"You—you were with McGrane?" the young woman faltered.

"Yes. At the time that your brother was assaulted McGrane was with him. Both were overpowered, and your brother received a wound from which he died a few minutes afterward."

A strange calmness came over Louise. "Where did the assault take place?" she asked, with trembling lips.

"On the lake front, below the sea-wall, in front of your house."

"How did you happen to be there?"

"McGrane told me that Montresor sometimes went to that spot—to talk with your brother, or to receive messages from his friends."

Overcome by the manifestations of the pain which necessity had compelled him to inflict on these two women, the young man allowed his gaze to fall. Louise continued to regard him searchingly. Then, in a cold, quiet voice, she spoke.

"My father told me that McGrane had been drinking, and that for this reason he had been discharged," she said. "It is only natural, therefore, to infer that he was angry at our family, as well as intoxicated, while you were with him. Are you sure that in the darkness you did not mistake my brother for the man who had assaulted you in Lincoln Park?"

The Altoona man grew livid.

"You—you mean—" he stammered.

As he hesitated Louise, with an arm around her sobbing mother, straightened herself slowly, then, leaning toward Erskine, she said:

"I mean that I shall communicate at once with Chicago, and if I find that any calamity has befallen my brother I shall cause you to be followed to the very ends of the earth!"

With flashing eyes the young woman rose and pointed to the door.

"Go!" she commanded sternly.

Too dumfounded to reply or move, Erskine stood staring helplessly at his beautiful accuser. Was she only acting a part, or did she really harbor the suspicion which her lips had just expressed?

(To be continued.)

OLD-TIMER TALES—No. 4.

Surveying the Bad Lands.

BY BERTRAM ADLER.

THE boys who started out to "win the West" by laying two strips of steel over a right of way, and especially those intrepid heroes—the surveyors—encountered romance and adventure in the truest sense of those much-abused words. Breaking into an unknown wilderness without guides, hunting the wild beasts for food, dodging Indians that hovered in ambush—these were but a few of the obstacles that stood in the way of the men who broke through our frontier to open new lands of wealth and wonder.

Those days have gone. Their men and the achievements of those men are history. We live in the great era of commerce that their work produced.

Desperate Encounters with Indians and Other Hardships of the Men Who Made the Preliminary Survey for the Northern Pacific's Route from the Great Lakes to Puget Sound.



H. COTTER, messenger for the Northern Pacific Express Company at Spokane, Washington, where he has been employed for the last twenty-five years, was with the Stan-

ley party in 1872, when the Northern Pacific Railroad made its preliminary survey through what is now North Dakota.

"In the spring of 1872," said Mr. Cotter, "I was employed by the Northern Pacific Railroad at Brainerd, Minnesota. The company was just starting its overland road from the Great Lakes to Puget Sound. The road was built only as far as Brainerd at that time and in operation, while west of Brainerd the graders were at work between the Mississippi and the Red River.

"E. C. Winne was purchasing-agent for the company, furnishing all supplies, stores, horses, and wagons needed in the engineering department for the construction of the road.

"Having several parties out on the line, it was necessary to have horses to transport their camps and supplies. Mr. Winne went to St. Paul to purchase horses. I received a telegram from him to report to him at St. Paul and to take a car-load of horses to Fargo, North Dakota. We had to ship the horses by way of the St. Paul and Breckenridge, which was the only road running at that time.

"When I arrived at Breckenridge I had to go sixty miles overland to Fargo. West of Fargo there were engineering-camps strung along which had to be supplied with provisions and outfits, and the graders' camps between the Red River on the north and the Missouri River.

"I was instructed to take a telegraph outfit through to Jimtown, one hundred miles west of Fargo. Arriving there with an operator, I reported by wire to Mr. Winne. This was the first message over the line.

"I received instructions from him by

wire to proceed to Bismarck, on the Missouri River, to accompany an expedition for laying out the preliminary line of the Northern Pacific through to Yellowstone, Bismarck being the starting-point of the expedition.

"Camp was fixed at Bismarck, and the expedition was to start about the middle of July, supplies and everything being brought up the Missouri River by steamboat.

The Sioux Hunting-Grounds.

"We crossed the river on the steamboat the middle of July. The engineering forces were under the immediate command of General Rosser, a noted cavalry officer of the Southern forces in the Civil War.

"The country west of the Missouri River was wild, and the route through the Sioux hunting-grounds was dangerous. It was necessary to have an escort of soldiers and government troops. General Stanley was in command at Fort Standing Rock, with six hundred troops under his immediate command, and equipped with forty re-scouts, with Louis Agard, one of the most notable guides of the West, in charge.

"The engineering-party started from Fort Abraham Lincoln, while the command under General Stanley started from Fort Standing Rock. Two days' march brought the columns together. Fort Lincoln was being built at that time.

"There were sixty-five government wagons, one hundred two-mule wagons, and the engineering department had twenty four-horse wagons which hauled supplies, camp, and baggage. There were two surveying-parties of twenty men each, surveying two preliminary lines, and a guard of soldiers with each.

Striking the Bad Lands.

"In our line of march, the re-scouts were in the lead, scouring the country, watching for the Sioux tribe. We proceeded west till we struck the Bad Lands, which was once a vast coal-field, and had been burning for years. Fires were burning when we reached the Bad Lands, which are twenty miles wide and extend from the Black Hills on the southwest

to the Missouri River on the northeast. The Little Missouri River traversed the whole length of the Bad Lands.

"The first night in the Bad Lands one of our hunters killed a bear, and we had meat for supper and breakfast. These hunters went ahead with the re-scouts, killed the game, marked the meat for each company, and left it lying where we would pick it up as we came along. We had two hunters for each party.

"Arriving at the Little Missouri River, we had to camp there a week on account of high water. In going through the Bad Lands we had a skirmish-line out on each side of the train to protect us, and from that time on we kept a skirmish-line out, as the Indians were beginning to be troublesome.

A Narrow Escape.

"One night we made a dry camp. We had to go out and hunt for water. The scouts reported water a mile and a half from us, down in the gulch, where we could not get a place to camp. We had orders to go there for water, with guards for protection.

"John Bear and I took the lead. We got within twenty rods of the water, but the Indians were in ambush, and if it had not been for the soldiers coming up at the time, I would not be here to tell the story.

"We were attacked one night, and had to call out the troops. Shots were fired back and forth, but no damage was done, no one was killed.

"Arriving at the head of O'Fallon Creek, in a valley three-quarters of a mile wide, with bluffs on each side, the Indians attacked us again, riding up on top of the ridges and shooting down at the party.

"The skirmish-line on each side of the train climbed the mountains and drove off the Indians. There were one hundred and fifty reds in the party, as near as we could learn. Louis Agard, our guide, was known to many of the Indians, and he rode out to the camp and talked to them.

"They notified him that they were going to kill us, as we were going through their hunting-grounds, and that was what they did not like.

"The night of the attack on O'Fallon

Creek, five of the re-scouts were missing. The next morning at dawn they came into camp, their horses reeking with sweat.

The Indians had been chasing them all night, but they managed to keep out of their way.

"While camped on our backward journey, thirty miles from the Yellowstone River, General Rosser, with one guide and an escort of two, had to make a trip back to the mouth of Powder River. He made the trip inside of twenty-four hours, luckily not seeing an Indian, although there were plenty of them around, watching.

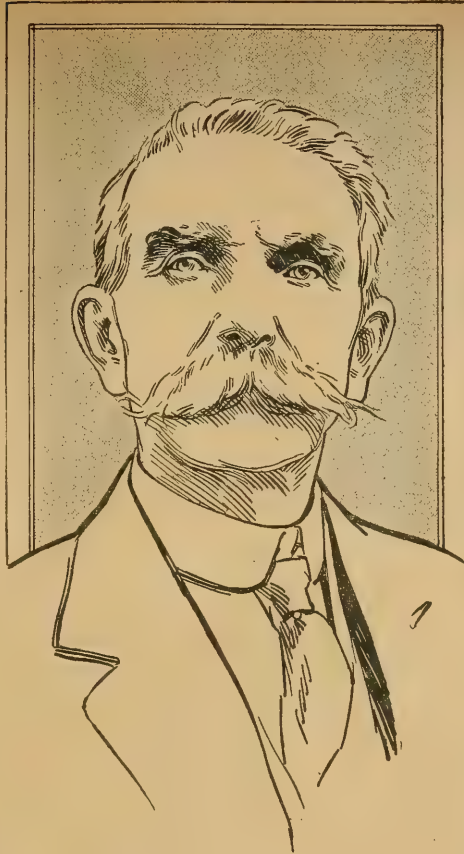
"The Indians in those days used looking-glasses to make signals. We could see them giving signs nearly every day, reflecting with the sunlight across the prairies for miles.

"Every man was furnished with a needle-gun and a belt of cartridges, supplied by the government, the guns to be returned to the government when we arrived back at Fort Lincoln.

"At that time it was thought that gold would be found in plenty in the Yellowstone River.

"We had in our party many gold prospectors and hunters who took the trip to seek for gold. At nearly every creek we would come to we would see them out with their pans washing for color. These prospectors and hunters would drive the horses for us, and do work about the camp, just to be along with the party.

"While we were camped at Bismarck,



J. H. COTTER,

WHO WAS WITH THE NORTHERN PACIFIC'S
SURVEYING-PARTY IN 1872.

before we crossed the river, we could see through our telescopes the re-scouts and the Sioux fighting, six miles away. One night the Indians came to the camp and shot through the wagons, but hurt no one.

"The next sunrise we broke camp, but before the last wagon left the Indians attacked us again. General Stanley ordered us into corral immediately on the run. The Indians fought us for three hours, but were finally chased off by the scouts and the skirmish-lines.

"We proceeded down the creek until we struck the the Yellowstone River, following the Yellowstone up to the Powder River, where we expected to meet a survey-

ing-party which had started from Helena, Montana, at the same time that we started from Fort Lincoln.

"We camped at the mouth of Powder River, with no signs of the other party. While at this camp the engineering department was running a line a few miles farther. They were attacked by the Indians, and one of the party became separated, but the re-scouts came to his assistance and saved his life.

"While at that camp on the Yellowstone River, the men decided to go in bathing. There were about two hundred of us in swimming when the Indians approached from the opposite side of the river and began firing on us.

"The men did not have time to dress, but grabbed their clothes and ran for camp. Fortunately the bullets went wide.

General Stanley ordered the cannon unlimbered, and fired a few shells across the river, driving the Indians away. We lay in camp two weeks, waiting for the other party from Helena, but could hear nothing from them. We started on the return and camped again on O'Fallon Creek.

Provisions Getting Low.

"As our provisions were getting low, it was thought necessary to start part of the train back to Bismarck after provisions, while the rest of the department was surveying. We had orders to leave the camp at twelve o'clock, night, so that the Indians would not know that the party had separated.

"We left camp in two columns, with a skirmish-line on each side for protection, and traveled until sunrise.

"While at breakfast, our scouts on the lead reported a courier advancing. This courier had left Bismarck three days before, traveling day and night, with despatches stating that the surveying-party from Helena, which was to meet us at Powder River, had been compelled to turn back on account of the Indians.

"These despatches had to go by courier from the engineering-camp, to Helena, Montana, then by wire to Omaha, from Omaha to St. Paul by wire, and from St. Paul to Fort Abraham Lincoln by wire, and thence by courier to our camp.

"The Indians had driven the other party back, and General Stanley was advised to be on his guard, as the redskins were coming to drive him back also. The courier took breakfast with us and proceeded on his way.

A Running Fight.

"We traveled as fast as we could to Fort Lincoln for our supplies. Loading up as soon as possible, we started back again, not knowing where we would meet the other party, but expecting them in the Bad Lands of the Little Missouri.

"Arriving at that river, on our second

trip, we could find no trace of the expedition. We sent the two scouts out to hunt for the engineers. They were driven in by the Indians; one of the horses was shot through the head, but able to bring its rider in. The other scout returned with a bullet-hole through his coat.

"Next day we sent out ten scouts, who had a running fight with the Indians, but they located the surveying-party. We stayed in camp on the Little Missouri until the other party came. The Indians sent word that they would kill us all.

"One day, as we were on the march, the lieutenant was outside of the skirmish-line hunting antelopes. The Indians shot and killed him. Several Indians rode up to scalp him. One dismounted, and just as he was about to put his hand on our comrade's hair, General Rosser shot him.

Wouldn't Scalp a Negro.

"A short time after that, on the same day, a colored cook was hunting antelope with a white bulldog. The Indians killed the cook and the dog, too, but would not scalp the negro on account of his curly hair.

"They stripped him and left him and the dog side by side. The lieutenant and the cook were both buried by the troops.

"We returned to the Missouri River October 20, this being the first preliminary line surveyed for the Northern Pacific west of the Missouri River. Another expedition was sent out in 1873, and ran a preliminary line several miles from the one we made, but it was not until after General Terry's command, which was out in 1876, at the time that General Custer and his gallant troops of the Seventh Cavalry of three hundred were massacred on the Little Big Horn, that the Northern Pacific could start grading on the west of the Missouri. The engineers and graders had to be protected by troops during their work. At that time it was a wild, unbroken country. To-day it is covered by farms, and prosperity reigns supreme."

**You need better brakes for "drifting" than you do for climbing.
An easy life is not always the safest.—Precepts of an Eagle Eye.**

BILL DAIDY'S CHAPTER.

BY ROBERT FULKERSON HOFFMAN.

A Sharp-Tongued Engineer Wins Recognition Kicking Everything in Sight, and Then Some.



It is a feature of the glad, free life of this republic that every man is entitled to an opinion on everything under the sun, and, within wide limits, is entitled to the unrestricted expression of that opinion.

Bill Daidy is one of those who believe there is good in the large exercise of that privilege, although of late years he has added caution to candor.

In the old days he came in off his engine, loaded with the usual accumulation of griefs over the shortcomings of the roundhouse, which are apt to loom large in the long watches of the night-run.

He gradually grew the habit of closing his regular harangue to the roundhouse foreman with a sort of peroration which summed-up the real or imaginary derelictions of everybody connected with the road, from call-boy to president.

In an effort to break the flow of Bill's rough eloquence the roundhouse foreman unwittingly set Bill's feet upon the path that led upward—downward, Bill laughingly insists sometimes.

"Bill, why in thunder don't you write a book?" said the long-suffering foreman, when Bill had become more than usually aggressive in his none too gentle impeachments. "You are sure wasting your talent on an engine."

Bill glared for a moment before he was able to let down the pressure of road management which he had mentally assumed, and then, as the recollection of a purchase he had recently made for his growing son flashed across his mind, he gave way to a slow grin and said:

"Blamed if I don't believe that's a good idea, Ballard. Maybe I'll just go

you a chapter, when my boy gets fit with his machine."

So, Daidy, in his evenings at home, took to rehearsing his daily griefs to the boy, who laboriously hammered them out of the typewriter into grotesques of composition and the printer's art.

Meanwhile the boy grew rapidly in the skill of the machine, while Bill's ideas of his wrongs and tribulations went farther and farther afield, but became more clean-cut and pointed as he put them to the cold test of reading.

Daidy "dictated" and "revised," "killed copy" and "edited," although he did not know it in those terms, and after many days what he had grown to call "The Chapter" was finished, decked out with border-lines that fairly exhausted the resources of the boy, and the eighty-odd characters of the machine.

Bill gloated over it for a week of nights, and then liked it so well that he decided to have it all done over again, in order that he might not only supply Ballard, but also send carbon copies of it surreptitiously to the superintendent of motive power, the division superintendent, and—holy of holies—the general manager.

He shrank, somehow, from including the master mechanic, who had a convincing and abrupt way of puncturing bubbles. Therefore, that able gentleman was, for the time being, blissfully unaware that the seeds of a great accomplishment were germinating within his bailiwick.

The superintendent of motive power duly received his copy, threw it in the waste-basket, and remarked casually, "Bill!"

He liked Bill, but not Bill's too free excoriations.

The division superintendent read his copy and, laughing, pigeonholed it for future use in letting down the pressure of the superintendent of motive power, when next they should lock horns over engine-failures.

The general manager took up his copy from its personal cover and read it from start to finish, as follows:

CHAPTER ONE.

IF this don't fit your case, you get a clearance card right here. The board is out for others.

When you build an engine and want the most results and don't care what kind, fix yourself with a lot of discouraged draftsmen, and, for chief, get a good wrangler that talks into his whiskers and don't decide much.

Tell them fellows, at the start, that you put them into that cheese-box office to stay, and they can't break out onto the road to see an engine do business, nowadays.

Don't pay any of them too much. They are working on paper, and you can easily fix the engine after we get it.

Hire a lot of master mechanics that know all about sawmills. There ain't none around here, but you can see them running in the woods if you take a ride with me. They will be ready to lay up your new engine when it comes out.

Fix up boiler steel specifications that you know are O. K., and then let the purchasing agent bluff you into taking something better but cheaper; he can prove it. That will sure give a lift, once in a while, to some of us fellows that's a little slow about circulating in the scenery, and it will make things brisk in the boiler-shop. Them fellows need work. They are too strong to rest nights.

Use hammered engine-frames. If I was a track-man, I'd like to be able to put my hand on a busted weld and say, "Them's it," after the engine jumped the track and got pulled out of a borrow-pit. The despatcher won't care, if she don't block the track. It makes work for the blacksmiths.

Fix your spring-rigging so, when it breaks, the equalizer will hit, point down, in the track. Gives the engine a better start when she jumps. She will go farther and everything had ought to be made go as far as it can.

Truck-pedestal binder-bolts should set low enough to rip up a frosty plank crossing. It gives the engines a good name as goers. One nut's enough. Two stay on too well.

Put your driving-box wedge-bolts in a safe-deposit box behind the driving-wheels.

Somebody might get at them with a wrench, on the road. Wedge-bolts had ought to be smelled or heard from when the journals screech; not seen.

If anybody thinks he wants to slack a wedge-bolt, let that man shoot the jamb-nuts off with a gun. That's what guns is for, and they'd ought to be carried in the tool-kit.

The roundhouse gang's too good for the job. New engines don't run hot soon enough to suit yours truly. Put a crew of hoboes in there and tell them they got to save oil and ram the cellar-packing down in with a pinch-bar. They will do it. The babbitt and stuff you drop over the division makes good ballast.

Wall in your cellar-bolts, so if a fellow gets them out, digging babbitt out of the cellar, on a fast run, he can't get them in again inside of fifteen minutes apiece. The despatcher won't care—ask him—and the engineer daresn't. It's all he can do to talk his way out of a lay-off.

Don't you worry about front-ends. If the engine looks good to you, but don't steam no more than a teakettle with the bottom out, let the trainmaster put on a helper once in a while. Three or five years from now somebody else will have your job anyhow, and he'll set most of your front-end furniture out on the scrap-pile while he cleans house, and forget to put it back again. That will help some.

When some fellow offers you one of them superheaters or feed-water heaters with his name stamped onto it, tell him to go over to the Y. M. C. A. library and read ancient history on how them things was let rust off of every sacred-ox cart in Egypt six thousand years before George Stephenson—and why don't he go get a patent on an incubator or something useful?

Put the biggest smoke-stack onto her that your money will buy without passing dividends. It makes what my old schoolmaster used to call "quiet dignity"; like big ears onto a jackass.

You can easily choke down the exhaust-nozzle to suit, and the general manager ain't ashamed to say that he don't know back-pressure from lumbago. He's a healthy man, or was, the last time I pulled him, and can't bother about little fleas like them on the railroad dog.

Run out a long extension on the front end. It's no good, but it gives a bejolly look that makes newspaper men gape at her and say she's a wonder for speed. That'll do the general passenger-agent good, but he knows it ain't so.

If you find there's rooms to rent in the front end after you get it done, and the

heater men show up again without the incubator, fill her up with their stuff. It's hang for us fellows, but it helps hold the front trucks down when you're going some.

Bend your feed and air pipes as sharp and as often as you can. It shows that nobody was looking and they freeze up quicker.

Look out for your engine-cab. Fix it so that, if a fellow goes to the front door he can't get back again to the throttle without getting orders from the despatcher, showing that the main-line of the cab is clear.

Put the injector, the levers, and brake-valve where he can't get at them too soon. He will find them with a torch. Stand the reverse-lever where it will corner him hard against the cab in back-motion, and throw him out of the front door when he lets it down to drift. Make it short and a hard kicker. Don't put in a foot-rest. He might pull up the rails.

Set the engineer's brake-valve where the handle will connect with a fellow's breeches when he climbs up or down, and make a full application or release. It will make business for the claim department, and the man that runs her will get a gift of gab that ain't found in no almanac—same as the rest of us.

Any man that says the valves rub the balance-plates is most generally mistaken. If the reverse-lever kicks clear of the quadrant and deals him a solar plexy—never mind. He can't swear until he comes to, and the passengers will blame it onto him anyhow. He's got to get there or get off. You know it.

When he wants the fit of cross-head keys and spiders examined, tell him it was the main rod he heard. It's rich to let a cylinder-head go out once in a while; sounds patriotic, and makes them fellows in the machine-shop feel they are worth while.

The boy allows we are working too many nights at this. He wants a change. We are. So don't you bother about fire-boxes and ash-pans. When the president sends word that he "couldn't see the right of way on his last trip for smoke," send him to me, and I'll tell him he was on the wrong end of the train. It was all clear ahead of the engine.

That'll make him know that we are men of some parts; part wood and part leather, with brass trimmings—which I am

Yours truly,
WILLIAM DAIDY, *Engineer.*

It has been a number of years since Daidy handed his chapter, duly sealed, to Ballard, in the roundhouse, and Ballard pocketed it, unopened, as Daidy went out upon his run. But Ballard still has the first page of it framed above his desk,

in its what-not border, composed of all the claw-marks and constellations that Daidy's invincible typewriter could produce.

Ballard is not, fortunately for him, a roundhouse foreman now, and Daidy's modest title of engineer has also undergone some changes for better.

It was with the general manager, however, that the seed of Daidy's rough-shod sowing first took root, although no intimation of that reached Daidy at the time, except in the master mechanic's peremptory challenge when Bill arrived back after a lay-over of two days at the farther end of the division.

"Say," demanded the master mechanic, "do you carry that cussed typewriter of yours on the engine with you?"

"Naw," Bill answered promptly.

"Well," said the master mechanic, with the absorbed air of hearing other things than Bill's reply, "you want to quit it."

Daidy, seeing farther than across the right of way, said no more, but departed.

When a man has enough strength of character to get his head above the level of railroad waters, however grotesquely he may at first appear, there is usually something in him worth observing. If he has balance and staying powers he may get his feet upon the solid, and a leader has been discovered.

Somewhat in this fashion the general manager reasoned as he read Bill's chapter. He called his secretary, and by careful question and reply it was soon established that neither of them knew who William Daidy was, nor what of William's chapter was fact and what fancy.

Therefore, the general manager made a brief investigation, put some pointed questions to the superintendent of motive power, who fumed a little, but electrified the master mechanic (as witness his short and simple inquiry of Bill), and thus Bill's little seeds began to grow apace.

Changes were made. Plans were devised and revised until new engines bore signs of improvement. These things were discussed on the home road, and the news of them went broadcast over many roads.

Bill's ideas bore the test of service, and flourished like the proverbial green bay tree, until finally they came before the "First Intelligence," the "Great Arca-

num," or "Court of Last Resort" of the railroad mechanical world, and were called good. No longer bearing the name of "William Daidy, Engineer," it is true, but labeled with the names of many men, for that is the way of the world, and the destiny of all things that are good enough to prove good.

But the "Court of Last Resort" called them good, under whatever sponsorship they then appeared; and for those who

long ago read the lines of Daidy's chapter, and read between those lines as well, there is written large upon the modern locomotive the story that is written here.

Bill never got beyond "Chapter One" of Ballard's "book." There was no need. But having demonstrated that he was "a man of parts," it was thought advantageous to transpose him to the ranks of those he had smitten. Thus, Bill became a road foreman of engines—and more.

THE BREVITY OF RAILROAD ORDERS.

British Railroader Thinks that Those Issued in America Should Contain More Information.

THE following interesting comment on American methods appeared in a recent issue of a London contemporary:

"One feature that strikes a British railway officer when visiting America is the frugality of the notices given to trainmen as to signal changes, as compared with those issued in this country.

"Our practise is, as a rule, to have a block showing the shape of the signal, to give its name, distance from the signal-box, and position, whether on the up or down side of the line. All new signal-boxes and new or altered junctions, cross-over roads and other connections are described in great detail. These details, to an American, no doubt, appear unnecessary, and, possibly, they are so. But they have contributed to the great safety of British railways.

"The brevity of the notice issued by the Lake Shore and Michigan Southern Railroad, when the working of the lines between Chicago and Elkhart was changed from left-hand to right-hand running in July last will point our remarks.

"Although the length of railway affected is ninety miles, the notice of the changes and of the essential alteration to roads and signals is contained in eighty lines, from which we extract the following:

"Rule D-108 will be modified as follows: Where two main tracks are in service trains will use the right-hand track unless otherwise instructed. When more than two main tracks are in service, instructions as to their use will be given in the time-table.

"The following new sidings will go into service at the same time.' Here follows reference to seven sidings, all the details of which are given in fifteen lines.

"At various stations track changes have been made, especially in cross-overs. All concerned should familiarize themselves with the changes.

"Interlocking, train order, and automatic block signals will be located either over or upon the right of and adjoining the track to which they refer."

The change, notwithstanding the lack of information as to its extent, was made without any mishap or delay.

Might it not be that the writer of the above comment saw an *apparent* brevity in the notice mentioned and failed to appreciate that a vast amount of work had been expended upon this notice to bring it down to a form in which it could be most readily and effectively comprehended by the engineer, says *The Signal Engineer*.

The fact that the change-over was made without any mishap or delay seems to prove conclusively enough that the notice in its final form was not too brief. Any implication in this comment that the prevailing practise of giving as little as is required in notices of this character in America is a contributory cause of unsafe operation is entirely unwarranted.

Operating officials in this country know their roads and know their men. If there appears to be a seeming meagerness of detail in the instructions that they give to engine-men in cases of this kind, it is because they regard brevity a virtue so long as it is not inconsistent with the full understanding of the situation on the part of the engineer.

Results prove that though the instructions are *brief* they are not lacking in essential information.

Letters of an Old Railroad Man and His Son.

BY HERMAN DA COSTA.

No. 6.—WHY THE KNOCKER ALWAYS LOSES.

Jim Suddenly Discovers that a Haughty Gent Has Been Placed Over Him, and He Writes Papa that He'll Resign at Once.

JIM TO THE OLD MAN.



DEAR DAD: For the last week I've been as mad as a hornet. Bigby had to quit on account of illness, and, naturally, I was right in line for his job. I held it,

too, for over three months while he was away, and got along first-rate—according to what Connolly said.

Last Monday morning, Connolly brought a new man up to me, and introduced him as T. F.'s new secretary.

For a moment, I was flabbergasted. Then I stood up, shook hands and said something, and went back to work. But all day I felt as mean as a cat that's been given a bath.

It didn't seem right, and doesn't even now, that a fellow should come in and be put over my head that way. I remember telling you that if a man deserved it, he ought to get promoted, no matter who was in the way; but the fact is that this fellow doesn't know the next thing about railroading, and is as much able to do the work as a salted mackerel.

For instance, he wrote the general manager of the B. and O. S. W., asking him to explain how No. 6 happened to lose two hours on the Illinois Division, when even the office-boy knows that we haven't got anything to do with the

Southwestern, and have no business asking them to explain delays unless we write them through the president.

We got a hot letter from Burnside's, of the Southwestern. He wrote direct to the president, asking him if T. F. had so little to do that he wanted to butt in on another division. The president sent for T. F., and Mr. Private Secretary got a grilling.

Later, I found out that some fat-head director had asked the president to appoint this man as private secretary to some official, and as this director was an influential man he was given the place that Bigby left vacant.

It's a shame. I wouldn't mind it so much, but Grand, the new man, is a haughty cuss, whose father and mother are in society, and he won't speak to you like a decent fellow. Just a couple of days ago he sent for me. When I entered the office he wheeled round in his chair.

"Take this letter, Britt," he ordered.

"Take it yourself!" I fired back.

He got red. "You're insolent. Will you take this letter, or won't you?"

"I won't," I answered.

Then I left him, and went back to my work. In a minute or so he came out to Connolly and marched up to his desk. "I instructed that young man to receive this dictation, Mr. Connolly," he said, "and he refused to do so."

He handed Connolly the letter. Connolly was pinning some correspondence together, and he forced a big pin through it before he answered. "That's all right," he replied; "I'll give it to him. Mr. Britt," he called out, "would you mind taking this letter for me?"

I took my book and hustled over to Connolly's desk. Grand stood there for a second, frowning, then went back in the office. When Connolly got through dictating, he stopped me as I was going.

"If you haven't got much on hand, and he asks you to do work for him," he said, "go ahead and do it. I know you aren't supposed to do it, but give a man enough rope and he'll hang himself."

Of course, Connolly is right in what he says; but it makes me hot to have to work for this man. I've taken dictation from him a couple times since, but never speak to him except on business.

He writes the worst fool stuff I ever read, but it's not my duty to correct it, and I send it out just the way he gives it to me. As a result, we've been called down several times by the freight traffic department. It made T. F. mad as blazes when Burnsides pitched into him, and Grand got a beautiful calling down.

I'm not feeling very much satisfied about things. If they can put in a man ahead of me on account of pull, I'm likely to stay in one position forever. I know enough now about railroad work to fill a position in almost any department, and I've been thinking about looking around for something else.

Still, I hate leaving T. F. and the office; they've treated me all right, and it feels like home now. But this "four-flusher," coming in with his aristocratic airs, is enough to upset anybody. The whole office has got it in for him. He had an argument with Lynes, and Lynes almost punched his head.

T. F. has been out on the line twice since the new man came, and each time he took him out with him. I noticed that both times he brought in a lot of letters and gave them to me to answer. He never did that with Bigby; so, evidently, the new man isn't making any great hit with T. F.

I think I'll look up a new place. If I can't locate anything, I guess I will resign, and come back home to visit you for

a week or so. But there are lots of places around town, and if I can't get suited right away, I'll keep on moving around until I get something good.

The B. and D. isn't such a great road, anyhow; and it's mighty mean to work a game like this on me. A road that will give a man a good job on account of a big pull isn't worth much anyhow.

Love to mother. Affectionately,

JIM.

TELEGRAM.

JAMES BRITT,

(Collect)

Care Gen'l. Mgr. B. & D. R. R., Balto., Md.

It takes grit to hold a job. Are you a quitter?

WM. BRITT.

TELEGRAM.

WM. BRITT,

(Paid)

Monongah, W. Va.

I'd rather be a quitter than a knocker.

J. BRITT.

TELEGRAM.

JAMES BRITT,

(Paid)

Care G. M., B. & D. R. R., Balto., Md.

What's the use of being either?

WM. BRITT.

THE OLD MAN TO JIM.

DEAR JIM: Some time before you were born there were two men working for the B. and D. One was named Lynes and one Connolly. Both worked as clerks in the superintendent's office. Both were good men, knew their business, and stuck to it.

One day a fellow was brought in from the outside and put over their heads at a salary twenty-five dollars more than they were getting. Lynes went right up in the air about it. He kicked and stormed and knocked the road. Connolly took it quietly, obeyed orders, and when the other fellow told him to do anything he did it.

In about a month's time Lynes was completely changed. From being a steady worker, he grumbled continually, and disobeyed the new man and knocked him to every one.

At first people agreed with him. It looked tough to have a job like that put up on him, and they told him so. That made him worse than ever. But after a while people got tired of listening to

Lynes. They had their own affairs to attend to. They set Lynes down as a chronic kicker, and began to knock him.

Gradually he dropped out of things, and took to criticizing the road and the office in public.

In the meantime, Connolly had gone on sticking steadily to business and obeying orders when they were given, regardless of who gave them. The new man made bad breaks, but Connolly always was on hand to help him out, and the two got along pretty smoothly.

One day a better position fell vacant, and the chief clerk, looking around for a competent man, thought of Connolly. He was loyal to his employers.

Lynes went up in the air. He had a grievance before, but it was an insult now. He was as well able to take the job as Connolly. Indeed, he thought he could hold it down better. In addition, the new man had got settled and was beginning to be sharp with Lynes. Lynes refused to do what the new man told him. He was reported to the C. C., and the C. C. got him up on the carpet.

After that, Lynes didn't have any use for the road. He drew his salary, and only did what he absolutely had to do.

One night he had gone off a little before closing time, and was standing on the corner waiting for a car, when a stranger asked him the way to the B. and D. Building.

Lynes told him how to get there, and added that it was the worst road in the country. The stranger naturally wanted to know why, and Lynes began to tell him about the awful delays on the line, the wrecks, and the rotten service.

He painted such an awful picture that he got the stranger interested. Incidentally, he let drop the fact, to show that he knew what he was talking about, that he was in the superintendent's office. That settled the stranger.

An employee of the road certainly ought to know if it was dangerous to travel on. He thanked Lynes and struck out for another route.

About a week after that a letter came down from the general manager's office through the general superintendent to the superintendent. It created a good deal of excitement around Connolly's desk. About quitting time, Connolly called

Lynes over and handed him the letter. It read:

About four days ago I met a Mr. Frisbie in New York, a member of Frisbie & Co., big cotton exporters. Mr. Frisbie had sent a very large shipment of cotton over the P. F. R. R., and I asked him if he could not give us a share of this business.

He told me that he had considered doing so on this shipment, but that he had learned from an authoritative source that the delays were so many on the B. and D. that he could not afford to risk it on his shipments, as they invariably called for connection with steamers sailing on set days.

I asked him what this source was. He was reluctant about answering, but I finally got him to state that seven days ago he had been in Baltimore on business, and accidentally met a man in the superintendent's office who gave him this information.

I challenged his statement, and he said it could be readily confirmed, as the man who had told him this was on the train reports, and thoroughly familiar with our traffic.

I suggest that action be taken to remove so disloyal an employee. In this instance his lying statements, if Mr. Frisbie was truthful, have lost us thousands of dollars in business.

The letter was signed by the freight traffic manager. At the bottom was written, in savage strokes of a pen:

Discharge this man at once, notifying us of his name.—J. D., GENERAL MANAGER.

For an instant everything swam before Lynes's eyes. He had to grip hold of the desk to remain standing. The chief clerk looked up at him. He gulped once or twice, and tried to speak, but his voice was lost. It was only too evident that he was guilty, and the chief clerk knew it.

Lynes got his discharge on the spot.

There wasn't a railroad man in town who didn't hear of his disloyalty, and when he applied for work he was promptly turned down. He had a wife and child to support, and things must have gone hard with him, for the year after that there was one of depression, and work was as hard to get as green corn in winter.

It was just about ten years ago that he came back to the B. and D. His hair was gray, and he was dressed like a tramp. The chief clerk had been promoted right along, and at the same time Connolly had gone along with him, until one was general superintendent and the other his chief clerk.

Lynes put up such a hard-luck story

to his old friend Connolly, now C. C., that Connolly finally managed to give him a little odd work around the office. His wife had died of starvation, and his child—the less said of the girl the better.

Then the general superintendent was promoted to be general manager, and he took Connolly along with him as chief clerk. You know them well. The G. M. is T. F., and Connolly is one of your bosses.

Some fellow with pull is always being

put ahead of some fellow who thinks he has merit.

What good is it going to do the second man if he goes off the handle and quits? He's out of a job then, and practically has to begin all over again. If he'd stick, the day would come when he'd be the one man to fit in, a pinch, and you bet your flues that there isn't a railroad that will pass him up.

Keep cool—and keep busy.

Your affectionate FATHER.

HE GOT HIS THROUGH CAR.

Although an Immigration Agent's Contract Wasn't Good, the Ohio Railroad Commission Helped Him Out.

J. P. TAFT is a Canadian immigration-agent, and if he doesn't get all that belongs to it for any party of immigrants he happens to be conducting he wants to know why. Recently he was convoying a party from Wheeling, West Virginia, to Alberta, Canada. He bought through tickets to Detroit—twenty-two of them—*via* the Baltimore and Ohio to Columbus, thence on the Hocking Valley to Detroit.

The Baltimore and Ohio train arrived at Columbus at 3.45 A.M., and, according to a definite understanding Mr. Taft had with the company, its car, with the immigration party, was to be attached to the regular 4.45 Hocking Valley train out of Columbus. But even immigration-agents have their troubles, and this nice little program was not to be.

The Hocking Valley officials were very sorry, but there was a trifling consideration in the shape of the Interstate Commerce Commission between their insistent patron and their really obliging selves. Mr. Taft had twenty-two through tickets, but to get a through car he must have twenty-five. Otherwise, both he and the Hocking Valley would be in trouble.

That sounded formidable, but it didn't freeze Mr. Taft. He said his verbal contract called for a through car. He had in his care several babies, whose innocent young lives should not be endangered by changing cars at such an unearthly hour, as well as an old man, whose gray hair he would not bring down in sorrow to another car.

He would either have his car taken out on the 5.45, or he would rouse from their beds the railway commissioners of the State of Ohio to give him his rights; better that four mere railway commissioners should lose

sleep, catch cold, and die, than that one immigrant, a prospective citizen of Canada and the British Empire, should change cars.

At this the Hocking Valley officials brightened perceptibly. They told Mr. Taft to go ahead and do his worst to the railway commissioners; they wouldn't hinder him. So down the street went Mr. Taft, and received the shock of his life when he found that the railroad commissioners were already about, and, in fact, were just preparing to take a train for Dayton to transact some official business.

The sight of such devotion to duty gave him hope, especially when he learned that one of the commissioners, Mr. Sullivan, was newly appointed. He knew that Mr. Sullivan would be zealous. Mr. Sullivan was. Also, he proved himself to be very diplomatic, soothing, and efficient.

He went with Mr. Taft, and in a remarkably short time a deputation of Hocking Valley officials was on its way with money in its pocket and charity in its heart to buy coffee and other things for the waiting immigrants. Another deputation, with Mr. Taft's cheerful approval, was cleaning out and preparing for their use a nice car, more comfortable than the one they had, which was to be backed up to their own car, so that they would not even have to step down the steps to make the transfer.

It was as simple as losing money, and soon Mr. Sullivan was departing, leaving gratitude in the hearts of Mr. Taft, the immigrants, and the Hocking Valley officials. The gratitude of the latter, however, was as nothing to their relief when they saw the coach of those departing immigrants disappear on the next train out.

ON THE EXCITEMENT SPECIAL.

BY F. H. RICHARDSON,

Author of "Oh, You Buttinsky!"

Fatty Takes Her Out, with Bill at the Shovel, and—Well, Let Bill Tell It.

"**B**ILL, I hear you are a sure-enough, dyed-in-the-wool hero," remarked the engineer as he climbed into the cab, a clean suit of overalls under his arm.

"I dunno about th' her end of it, but they's one thing I can tell you without any stutterin'."

"And what is that, Bill?"

"That I've had all th' excitement I'm hankerin' for, an' I don't want no more go-rounds with train-robbers now, hereafter, an' forevermore!"

"Tell me all about it, old man," said the engineer, seating himself comfortably to listen. "From what I've heard, it was a pretty hot proposition, all right."

"Say, you're on th' main line, sure enough! Hot? It was so hot that I won't need a fire t' keep me warm for some consid'able spell, I'm thinkin'."

"Y' see, it was this way. When you said you was a goin' to lay off las' trip, I doped it out that I'd take a rest, too; but the hoodoo that rides straddle of my shoulders when I'm awake an' sits on th' bed-post while I'm sleepin' got busy an' set me figgerin' how you'd only be off one trip an' how much I needed th' coin t' keep up my end with Sue."

"Of course, after I'd rolled that dope aroun' in th' sawdust up in th' top of my head for a spell, I concluded t' stay with it. Anybody but me 'ud 'a' had sense enough to 'a' layed off; but you can bet your next month's pay-check that if they's any trouble closer than th' moon, I'll be in th' exact geographical center of it with my hair in a braid."

"When you layed off, Fatty Burns, be-

in' first out on th' extra-board, drew th' trip for his particular prize. But I'll bet forty-seven dollars against a plug of kill-me-quick that he's busy right now wishin' it 'ud 'a' been th' night shift on th' leakiest, ornerest old switch-engine in the Chicago yards."

"Fatty's a good enough throttle-pusher, all right; an' I ain't got no kick on him, only he ain't got no sense, an' he's always buttin' into trouble jus' like me. Two hoodoos on one measly old tub of an engine at one time is too much. It's sendin' out a special invitation to trouble, an' sendin' it by telegraph at that."

"They wasn't much happened on th' down trip, excep' a little fairy tried t' make a mash on me when we stopped at Gainsboro, an' I was so busy preventin' her that I didn't see th' signal t' pull out, an' got a callin' down from ole Fuzzy Whiskers, th' con."

"He come trottin' up th' platform, puffed up like one of them bladder balloons, an' handed me a bunch of compliments that made th' fairy hop up th' street with both hands over her purty little ears. Ole Fuzzy can sure hand out a bundle of red-hot language when he gets real mad. But I got even with 'im—believe me."

"How did you do that, Bill?" inquired the engineer.

"Easy! When we pulled out I leaned out of th' gangway an' yelled at 'im to go back an' knock down a couple more dollars, an' he'd feel better. Say, he tried t' bite a chunk out of th' baggage-car as it went by, an' he was so busy shakin' his fist at me that he near forgot t' get on th' train."



"FATTY AN' ME RUBBERS AROUND AN' GAZES INTO TH' MUZZLES OF A COUPLE OF INFANT CANNONS."

"Well, comin' back we was flirtin' with th' landscape at th' rate of about fifty-five per, just this side of Oakley. Everything was runnin' as smooth as a new air-pump, an' th' trouble-train 'peared t' be backed clean off th' map when things began to happen; an' they kep' on a happenin' some more swift than this particular coal-pusher wants t' see 'em ag'in.

"Sue an' me hadn't had a scrap for more'n a week, an' things was gettin' so calm an' slow that I was jus' sayin' to Fatty I wished they would something bust loose an' stir 'em up an' sorter make life worth livin'.

"Say, talk about answers to your prayers! I hadn't more'n got th' words out of my grub-trap when somebody yells, 'Hands up!' an' Fatty an' me rubbers aroun' an' gazes into th' muzzles of a couple of infant cannons, backed by two plug-uglies who was roostin' on th' coal back in th' tank.

"They didn't a'pear t' be no absolute necessity of havin' a pencil an' a pad of

paper t' figure out what sort of a game we was up against. Neither me or Fatty had th' least idea they was a couple of members of th' Salvation Army, or even friends droppin' in for a quiet talk.

"I'll swear, though, 'bad scared as I was, I nearly had to laugh when I looked across at Fatty. He turned his head when th' gentle request t' elevate our fingers come, an' started t' say, 'What th'—!' But jus' as he got half of th' second word out he caught sight of the artillery, an' his face sorter froze up, an' there he sat for about half a minute.

"Say, you could 'a' hung a couple of towels up on his face just as easy, usin' his eyes for nails!

"Th' missionaries of peace climbed down over th' coal-gate an' made their début into th' cab, pokin' their armament right up under our noses jus' t' show they was nice, civil, well-disposed chaps that wouldn't hurt nobody, except by mistake.

"Say, did you ever examine th' business end of a gun real close when it was

in th' hands of th' enemy, th' hammer drawed back an' the finger of a real, live, eighteen-carat, dyed-in-the-wool train-robber toyin' with th' trigger?"

"No, Bill, I cannot say that I have," replied the engineer. "Did you enjoy the experience?"

"Huh! Not so's you could notice it! That big blunderbuss kep' growin' an' swellin' up till it filled th' whole back end of th' cab. Th' hole in th' end of it looked as big as a spike-keg, an' I could almost see th' bullet comin' out t' bat me one.

"Well, one of 'em continues his delicate attentions t' me, while th' other makes Fatty shut her off an' put on th' air, persuadin' him gentle-like by rubbin' th' business end of th' howitzer ag'in, his neck just under his west ear.

"I could see Fatty didn't like th' feel of th' thing any too well, for he kep' edgin' away an' jerkin' his head forward a little at a time, like he was bowin' t' some one real polite.

"Say, says Fatty pretty soon, jerkin' out his watch, 'number eight is due at Carbondale in twenty-six minutes, an' we meet her there. She has right of track, an' if we ain't there on time she'll come—'

"You shut up yer talk-trap an' get this train stopped," snarls Mr. Robber, 'if you ain't hankerin' t' be a candidate for wings real sudden. We don't care a wormy-apple core about number eight or anything else but th' coin in that express-car, an' we're goin' t' have that—see? If number eight comes along an' butts you off th' right of way after we're through, that's their lookout an' yours!'

"Gee! When that blasted bulldog-faced disgrace t' th' human race said that, I'd 'a' been willin' t' 'a' took a durn good lickin' t' 'a' pasted him one right square on th' end of his ugly nose; but th' trouble was he'd most likely have blowed th' top of my dome off before I could 'a' landed on him, an' what good 'ud I be with a tunnel through my thinkin' arrangements?

"Well, when Fatty got her stopped some more of th' gang that we hadn't been favored with a call from yet uncoupled th' express-car, an' then they made us pull ahead about half a mile, emphasizin' th' request by playfully pokin' Fatty in th' ribs with a baby cannon.

"Fatty spent his time between edgin' away from th' artillery as far as he could an' swearin' under his breath. I couldn't hear him, but I know by th' look on his face he wa'n't reciting poetry or practisin' baby-talk, even if there is a new kid jus' come to his house.

"When we got stopped again, one of th' amateur coin-collectors lit th' engine-torch an' got down on th' ground, his pardner herdin' Fatty an' me after makin' me take th' coal-pick along.

"Th' express-car didn't have no door in its front end, an' when we arrives at th' hind end they was two more get-rich-quick financiers waitin' for us. One of 'em makes th' fact known real quick that he's president of th' Robbin Steel Company.

"Get a move on, you fellers,' says he, like a bulldog growlin'. 'What'd you think this is, anyhow—a funeral or a pink tea?

"Hey, you inside th' car!' he yells, 'th' engineer's goin' t' bust in th' door of your old cracker-box. You can shoot all y' want to, but y' won't hit nobody but him,' all of which must 'a' been mighty interestin' news t' Burns an' th' man inside th' car, I'm thinkin'.

"Well, th' feller grabs th' coal-pick an' gives it t' Fatty, an' he steps up real prompt, as if he was goin' t' obey orders like a little lamb.

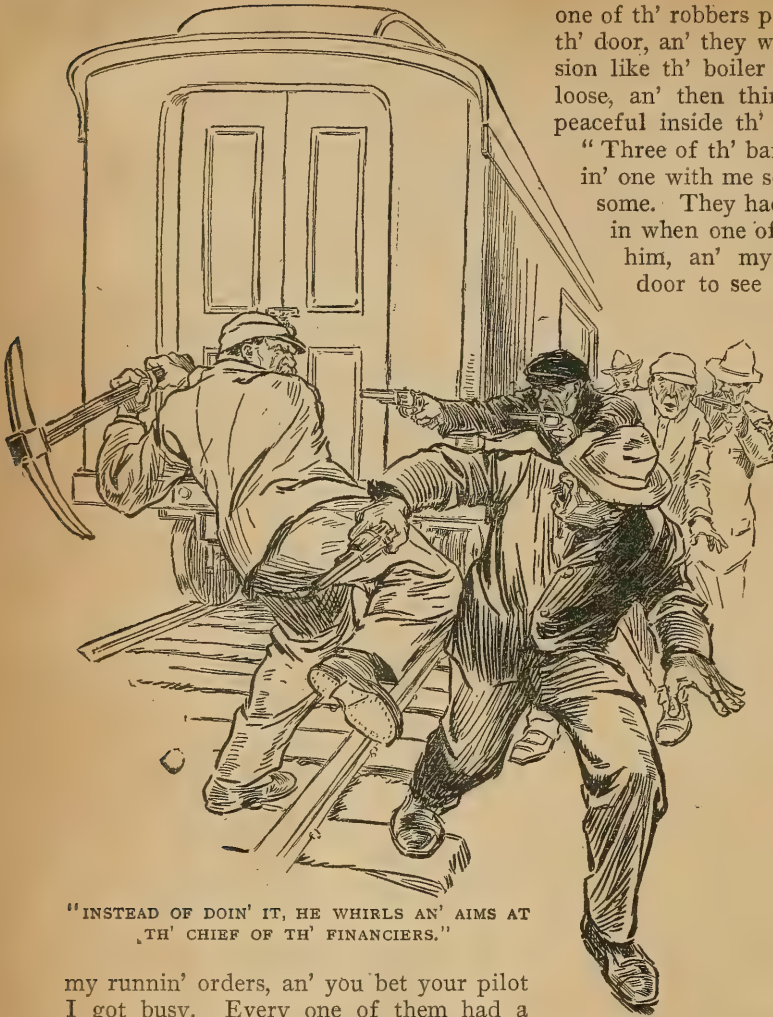
"They ain't no platform on them cars, you know, an' a man could stan' right on th' ties an' paste the lock of th' door.

"Fatty raises th' pick t' hand th' door one; but, instead of doin' it, he whirls an' aims at th' chief of th' financiers.

"Th' feller dodged, an' he missed 'im slick an' clean, an' durn near busted th' head of th' pick off th' handle when it come down on th' rail. It was a fool thing t' do, for, even if he'd 'a' laid out th' one he aimed at, they was three more of 'em with guns in their fists an' him with a coal-pick an' me with nothin' but my finger-nails t' fight with.

"Say! They was three pistol-butts made connection with Fatty's dome before th' pick hit th' ground, an' he dropped like a ten-wheeler fell on him. I sure thought they had put out his headlight for good.

"It took 'em jus' three-fifths of a second t' present me with th' coal-pick an'



"INSTEAD OF DOIN' IT, HE WHIRLS AN' AIMS AT
TH' CHIEF OF TH' FINANCIERS."

my runnin' orders, an' you bet your pilot I got busy. Every one of them had a Gatlin' gun in each hand, an' they was all pointed right square at your humble fireman.

"Say! I'd 'a' looked like a colander if they'd 'a' gone off! I was scared mad an' feelin' bad about Fatty, an' between th' three I was carryin' about all th' pressure I'm guaranteed for.

"It took jus' three licks t' bust th' lock of th' door, an' with th' last one the head of th' pick broke off, leavin' most of th' handle in my hands. I jumped back as th' door swung open, thinkin' th' messenger might accidentally send a few bunches of lead through, an' I didn't make no mistake. He sure lost no time in openin' up with his heavy artillery.

"It didn't do him no good, though, for

one of th' robbers pitched something in at th' door, an' they was a flash an' a explosion like th' boiler of th' engine had let loose, an' then things was all calm an' peaceful inside th' car.

"Three of th' bandits climbed in, leavin' one with me so I wouldn't get lonesome. They hadn't no more than got in when one of 'em lets a yell out of him, an' my man rubbers in th' door to see what's doin'.

"Say! I had th' handle of that pick in my fist yet, an' I jus' handed th' gentleman a tap on th' dome with th' butt-end of it an' sprinted for th' engine. I'll bet th' dirt from my shoes went clear over th' express-car, an' I guess I hit th' ground three times between th' back end of th' car and the gateway.

"She had a big fire in when Fatty shut her off at th' request of our friends, an' she was still poppin' t' beat th' band. I chucked th' lever down in th' corner, opened th' sand an' pulled her wide

open. She never slipped a turn, an' th' way she yanked that express-car ahead was a sight.

"I hustled a fire into her, an' by that time she was sendin' th' skyrockets a hundred feet above th' stack, an' things was beginnin' t' hum.

"As near as I could guess, we was nine miles from Carbondale, an' I had jus' seven minutes to make it; an' you bet I was doin' some tall guessin' 'long about that time of th' night."

"I'll bet there was a surprised lot of men back in the express-car," remarked the engineer.

"Yep, they sure was. The messenger told me all about it when I went out to th' hospital to see him to-day. It was a

dynamite cartridge th' whelps threw in th' door, an' it knocked him silly, besides breaking one of his wings."

"Wings, Bill?"

"Arm, Mr. Innocence! A-r-m, arm. It's a wonder you don't have t' have a map t' get over th' road with!"

"As I was sayin', it knocked 'im out for a minute an' broke an arm, an' when he got back on th' track th' three captains o' finance was in th' car, all ready for business, an' had impounded his gun for a starter."

"When I got t' th' engine an' yanked 'er open, he says it jerked th' whole outfit off their feet an' rolled 'em in a heap. By th' time they got up an' made up their minds what had hit 'em we was goin' so fast they couldn't get off."

"They was jus' wild, he said, an' one of 'em leaned out of each side door an' begun t' bombard th' engine, while th' other one—th' chief—chopped a hole in th' front end of th' car. They was a lot of iron rods, though, an' he couldn't make it big enough t' crawl through; but by gettin' up close t' th' top he could see over th' tank into th' cab an' pump bullets into it."

"I had her hooked up in six inches an' th' throttle wide open an', what's more,

she stayed that way until we sighted Carbondale."

"Run! Say, a streak o' lightning with a tin can tied t' its tail wouldn't 'a' been in it with us."

"I was leanin' out of your window, wonderin' whether I'd be a fireman or an angel in five minutes more, when *bing!* something took a chunk out of th' cab, an', lookin' back, I saw one of th' express-car passengers leanin' out of th' side door, aimin' his cannon right at me an' swearin' like a pirate."

"I jumped over t' th' other side, an' th' same identical performance was bein' pulled off there, too. I didn't lean out of no more windows, you hear me! Willie kep' right in th' exact mathematical center of th' deck, you bet."

"Why didn't you stop and go ahead and flag number eight?" asked the engineer.

"Huh! How long d' you reckon I'd 'a' lasted if I'd 'a' stopped this old tub an' 'a' give them gents a chance t' get at me? They wa'n't puttin' in any of their time lovin' me jus' then, mind you."

Properly abashed, the engineer subsided. "You are right, Bill. Go ahead with the story."

"Betcher life I'm right, an', what's



"TH' THREE CAPTAINS O' FINANCE WAS IN THE CAR, ALL READY FOR BUSINESS."

more, I'm alive, an' that's a durn sight more'n I'd 'a' been if I'd 'a' pulled off any fool stunts like that. Th' old girl was beginnin' t' take th' curves, runnin' mostly on one side, an' I could see th' roof of th' express-car wabblin' aroun' like it was crazy. I was jus' goin' t' ease her off a little when, *bing!* something hit th' boiler-head beside me, an' lookin' aroun', I saw a hole in th' front end of th' car near th' roof an' one of them blunderbusses spoutin' fire an' lead like a volcano gone crazy.

"Willie took one look an' dropped down behind th' coal-gate out o' range. I didn't dast to raise up after that, an' had t' put in th' fires on my hands an' knees."

"Gettin' pretty warm, wasn't it, Bill?"

"Well, they did 'pear t' be some set on gettin' Willie's goat, an' that's a fact. Cheer up, though, th' worst is yet t' come."

"Th' infernal chump kept pumpin' lead into th' cab, an' pretty soon one of his bullets broke th' water-glass; an' then, you bet, I said my 'Now I Lay Me.' She was a jumpin' around th' curves like a circus-horse in a ring, th' coal rattlin' down through th' coal-gate until it was clear out on th' deck, th' cab full of steam an' boilin' water, an' th' landscape, what little I could see of it through th' gangway, goin' by in a solid streak, an' th' bullets pingin' th' boilerhead an' cab!"

"Oh, it was a red-lemonade picnic, all right, all right. But Willie ain't lookin' for any more of 'em real soon."

"I'd got her goin' all right, an' she was sure goin' some, too; but, supposin' she stuck to th' rails until we got to Carbondale, *how in thunder was I goin' t' get her stopped?*"

"Th' apostle of peace was keepin' th' air full of bullets; an' if I raised up t' shut 'er off an' put on th' air, I'd stan' a fine, large, fat, juicy chance of stoppin' a pound or so of lead, which might upset my digestive machinery."

"Then, to add to th' pleasure of th' occasion, th' steam from th' busted water-glass filled th' cab, so I couldn't see a thing, or even see enough outside t' tell where we was; though, judgin' by th' speed, I was calculatin' we ought t' be at least half-way across th' United States."

"I couldn't even see my watch, an' was jus' beginnin' t' hold my breath, wait-

in' for th' smash, when we met number eight, an' was wonderin' how it 'ud feel t' be ground'up into sausage, when one of the blitherin' robbers did th' only decent stunt they pulled off all through th' mess. He busted out th' glass in the front cab-window on your side with one of his lead pills. Th' steam blowed out of that side of th' cab, of course, an' give me a chance t' do something. They was a piece of bell-cord behind your seat-box, an' keepin' down low, out o' range of th' bombardment, I got it out an' made a slip-noose on one end.

"Then I took a chance, an' raised up an' slipped it on th' whistle-lever an' pulled th' thing wide open. I tied th' other end of th' rope t' th' coal-gate."

"Say, th' net results was sure a peach! As th' tank 'ud bob up an' down, it 'ud wobble th' whistle-lever along with it. Th' durn'd thing sounded like a steam calliope gone plum' ravin' crazy."

"Just as I got that done I seen th' Carbondale mile-board go by like a ball out of a cannon. It was then sure up t' me t' do something real sudden unless I wanted t' introduce myself an' a lot of other folks t' th' hereafter in a minute."

"Th' bullets was still a plumpin' in. I guess that robber chap 'ud gone clean batty, an' didn't know a thing but trigger-pullin'. Reachin' up with th' coal-pick handle, I managed t' get th' throttle shoved in; an', after pluggin' at th' air-handle with lumps o' coal, I hit it a smash an' knocked it clear round to emergency."

"Pretty soon they was a slappity bang, smash—an' she rolled over t' one side, like she was goin' t' turn over at least half a dozen times. Afore I knowed what had happened, she was standin' still as a pet lamb, an' folks was crowdin' into th' cab an' askin' questions at th' rate of fifty-two to th' second."

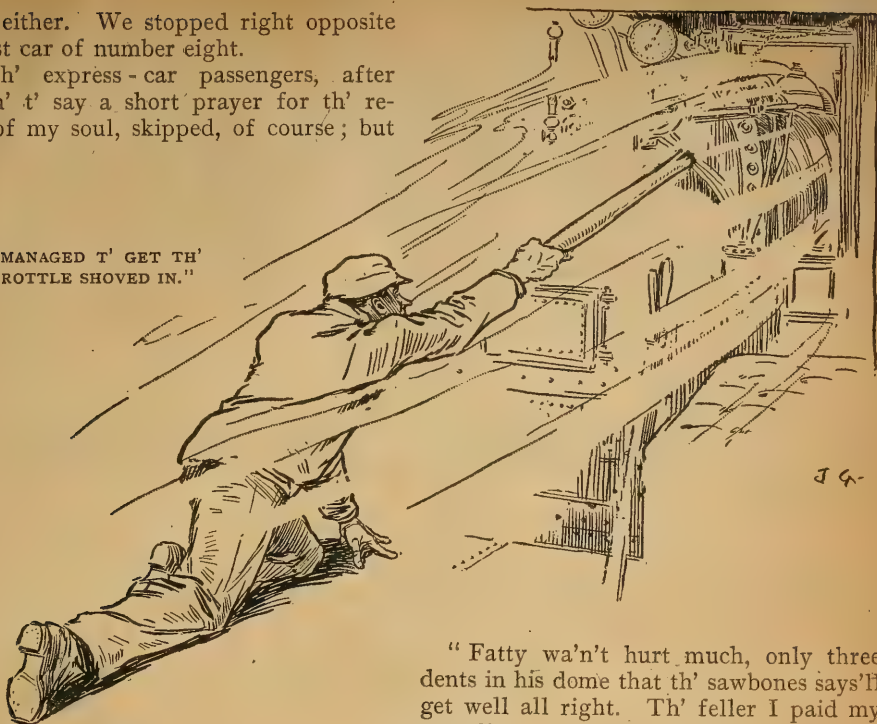
"Y' see, number eight happened t' have a passenger for Carbondale, an' for th' first time in a month stopped at that town. Just as they was pullin' out, th' eagle eye caught a glimpse of my headlight an' heard th' tune th' tank was playin' on th' whistle."

"He s'picioned they was something unusual comin' off, an' had sense enough t' stop again an' have his fireman skip down an' throw th' switch for th' side-track—an' he didn't do it a second too

soon, either. We stopped right opposite th' last car of number eight.

"Th' express-car passengers, after pausin' t' say a short prayer for th' repose of my soul, skipped, of course; but

"I MANAGED T' GET TH'
THROTTLE SHOVED IN."



th' sheriff got 'em afore daylight, an' th' coin was safe, all right, all right! Mebby th' express company'll come 'in with a check for ten dollars after a while. Wouldn't surprise me a bit.

"Fatty wa'n't hurt much, only three dents in his dome that th' sawbones says'll get well all right. Th' feller I paid my compliments to with th' pick-handle was still peacefully sleepin' when we got back t' th' train, an' th' sheriff gathered him in an'—there you are.

"It's time we was gettin' this old mill ready for some slower runnin' than that she done last trip, I'm thinkin'."

A NEWSY WHO KNEW HIS BUSINESS.

TIMSON had for nearly an hour been in the smoking compartment, while his wife had been permitted to sit alone at the rear end of the sleeper. At length he sauntered back and sat down beside the lady, saying that he wished the first call for lunch might soon be given.

Then he noticed that his wife was concealing something between herself and the side of the car.

"What have you got there?" he asked.

"Sh-sh," she replied, looking around to assure herself that she would not be overheard. "It's a book. The news-agent came through a little while ago, and he had this hidden under a lot of other things. I don't know why he thought he could trust his secret with me, but he did. We must not betray him."

"Let me see it."

"No, we mustn't show it here. Somebody might notice it, and the boy would get into trouble.

"He told you the railroad company had given orders that no more copies of it were to be sold on the train, didn't he?"

"Yes."

"And said it was terribly sensational?"

"Yes, it's a story we must be careful not to leave around where the children can get hold of it."

"It was the last copy of the book he had, too, wasn't it?"

"Yes. How do you happen to know so much about it?"

"He sold me one, too," said Timson, slipping his copy out from under his coat.—*Illinois Central Employees' Magazine.*



The Evolution of "Almost."

BY HORACE HERR.

3.—THE RIGHT TO SIGN ORDERS.

Through Showers of Cinders and Fireworks, "Almost" Works His Way to the Throttle, Making Many Errors, But Winning by Natural Efficiency.



ANY fellow who has endeavored to pick a living off a crowded extra board knows that it's like trying to make a full meal off of spareribs. Fortunately for me the oranges began to roll east about the time I gave up the honor of being the most important celebrity in Hulbrook.

At such a time, if a fellow even looked as if he might know how to operate a wheelbarrow, he had to be blind in one eye and cross-eyed in the other, or he was pressed into service.

Then, too, the road was putting down fifty miles of ballast over on the mountain, and five crews were busy there all the time. Work-trains in Arizona are about

as popular as the penitentiary, and all the old crews were glad to make a little less money in chain-gang.

It seems as if, years and years ago, long before Bill Bryan first ran for President, the cliff-dwellers must have had a big flat on Bill Williams's mountain, and kept dumping their ashes out the back way, until they built a cinder-pile which made Bill Williams's peak look like an ant-hill.

Prehistoric Cinders.

This mountain of cinders has furnished the ballast for about five hundred miles of track, and there's some mountain left—enough to make a fellow shudder at a cliff-dweller's coal-bill for one season.

Series began in March Railroad Man's Magazine. Single copies, 10 cents.

Well, in sprinkling these cinders along the right of way, one work-train was needed filling cars at the pit, three crews were used in hauling the loads to the stretch of track being improved, and the fifth crew operated the cinder-plow and the unloading.

Of course, after having had six months of nerve-twisting excitement in Hulbrook, I was highly elated, when one night, about four in the morning, the call-boy informed me that I was "it" for an extra west.

He cheerfully volunteered the pleasant information that we were going out to relieve the crew which had been serving a two-weeks' sentence unloading cinders.

At that particular time the unloading was going on along a stretch of track where a man was once seen standing by the right-of-way; but that was a long time ago, and you couldn't bank on

There wasn't even an operator, for the unloading crew always carried an operator-brakeman, who would cut-in wherever the crew happened to be working.

But there was one thing about it that made me feel a little better. When I came out of the despatcher's office, after signing up and registering my watch, and walked down in the yards, where a Baldwin hog was coupled to a caboose, I found Almost there waiting for me.

I suppose the old man figured that since I insisted that he be given a brakeman's badge, I would be willing to break him in—and I was. The other shak was a fellow by the name of Joe Magirl.



THE CLIFF-DWELLERS MUST HAVE HAD.
A BIG FLAT ON BILL WILLIAMS'S
MOUNTAIN.

any such excitement in the next ten years. There was a station out there called Sunshine, well named, too, for the only way to get away from that same everlasting sunshine was to crawl under a car.

After you had been in Sunshine for a day, Hulbrook looked like Kansas City at six o'clock in the evening. A fellow got so lonesome out there that every now and then he would go out and flirt with the switch-stand.

Joe learned his over on the Denver and Rio Grande, and when it came to shuffling the cars, tying them down by hand, putting in a brass, or chaining them together, Joe was there like a whistle. He had worked as an operator for several years, been a conductor several times, and I think he was trainmaster once on the Squedunk Central, or some other jerk-water pike.

He was sure an old head, best-natured fellow you ever saw, and I guess Almost

couldn't have found a better fellow to put him next.

Almost was jubilant. But eighteen hours later it was different.

When Grit Meets Grit.

Plowing cinders off a string of flats all day, with the heat registering 121 in the shade—minus the shade—switching the empties in on a siding and the loads out, comes as near being a picnic as an Arizona cactus does a mattress. Just the same, it was the makin' of the pup, and after the first day out Almost knew the difference between a go-ahead and a stop-sign.

In railroading every day is just like every other day, with something different. We put in a week unloading cinders, until the whole crew looked like cinders, before we were finally ordered over to the Cinder Pit.

At the Cinder Pit a fellow could get a real meal and something which resembled a bath. The next week we went to hauling to and from the pit, and for Almost, at least, things began to grow exciting.

The first evening we were making a late haul, so that the unloading crew would have something to do the first thing in the morning. We were dropping down a mountain grade a few minutes ahead of a passenger-train, and if everything had gone all right we would have been all to the good.

Almost's Assignment.

They hadn't more than started to roll well when one of those mountain showers set in, and about the same time the hog-head began to bellow for brakes. That grade is forty-one miles long, and going down there is but one place where a car won't start of its own weight.

Of course, Magirl got awful busy with a club, and knowing that climbing from one cinder flat to another was no work for a student, I left Almost in the caboose, with instructions to look out for the headlight of the passenger-train following us, and if they showed up to drop a fusee.

Then I went out to see what I could do at twisting a few. They had a good start, and our only hope was to tie them down when they hit the one hog-back, about ten miles on.

We hadn't gone a mile before the reflection of the headlight from the passenger-engine began to show behind us, and when I looked back there were at least three fusees lying back along the track, sputtering merrily.

We had dropped down another mile, and the passenger was showing up, ten miles back at the head of the grade; and if there were any more red lights in the caboose it was because Almost couldn't find them. A string of red-fire that would have been a winning feature in a Fourth of July celebration in any city was staked out behind us.

Private Fireworks.

It's an even bet that when the eagle eye tipped over the grade, and saw that string of red-fire staring him in the face, he put the trunks in the front end of the baggage-car. I couldn't go back over a dozen cars of cinders and tell the boy to quit dishing out the celebration, for I was mighty busy right where I was.

When we hit the hog-back it was as plain as the nose on your face that the cars were not going to stop. I knew that we would be some more busy before we got to Falstuf, at the bottom of the grade.

They were all tied down as tight as one man could tie them. In fact, I had begun to fear that a wheel would heat and break, and we would save any one the trouble of unloading that bunch of cinders.

I climbed over to a side stake, and leaned out just as we hit the hog-back and looked back toward the caboose. I saw the prettiest exhibition of fireworks I ever witnessed. First I saw a white and red light in the caboose door, then they shot out toward the ground, and then they shot up again in a beautiful semicircle, and all was darkness.

Devotion to Duty.

Almost's idea was fine, but his execution was poor. That headlight behind him kept getting bigger and bigger, until he decided that it was time to drop off an' flag. He dropped.

He not only dropped, but he rolled—about twenty feet down a cinder-bank, and into the only mud-hole along the whole system. He told me afterward that

he couldn't find his lanterns after he made the slide, but before severing his connections with the caboose he had loaded himself down with fuses and torpedoes.

Old Jim Evans was pulling the passenger, regular No. 10, that night, loafing along right on the schedule until he caught up with that crop of fuses. We made Falstuf all right, except that there wasn't a wheel on the train but what would have fried eggs, and were in the clear a good ten minutes before Evans brought No. 10 to a stop, with the engine opposite my caboose, and lost ten minutes telling me about it.

Jim was one of those fellows who took living as a part of life. Nothing ever upset his good-nature.

Of course, I fully expected him to hand Almost down from the cab a total wreck, but, instead, Almost climbed down from the deck alone, while Jim looked down with his perpetual grin. At first I didn't realize that it was Almost.

He had all of the southwest quarter, of the northeast half, of the east section of range ten of the State of Arizona wrapped about him. He had enough cinders mixed in to ballast the New York Central from end to end, and beginning at his revolver-pocket, and ending just above his hock-joint, there was a great deal of nothing in the way of clothing.

He looked as if he'd gone to a finish catch-as-catch-can with a buzz-saw. I held my lantern up so that the light revealed the details. The grin was about the only thing I recognized.

"He almost got into us," remarked Almost, by way of breaking the silence.

Scaring the Passengers.

"Almost!" echoed Jim, with a chuckle. "I was five miles behind you when I tipped the grade, and your tail lights were the biggest thing this side the Grand Cañon. If I'd been blind and deaf and dumb I couldn't 'a' got by the fireworks and the dynamite.

"When we hit Dewey's fleet back there I'll bet every passenger on the train hid his money. Reckon everybody in the sleep's in an upper berth. Wonder the whole train wasn't blowed to kingdom come.

"I guess there hain't no danger of any one hitting that dog-house of yours as long as you've got that lookin' out for it.



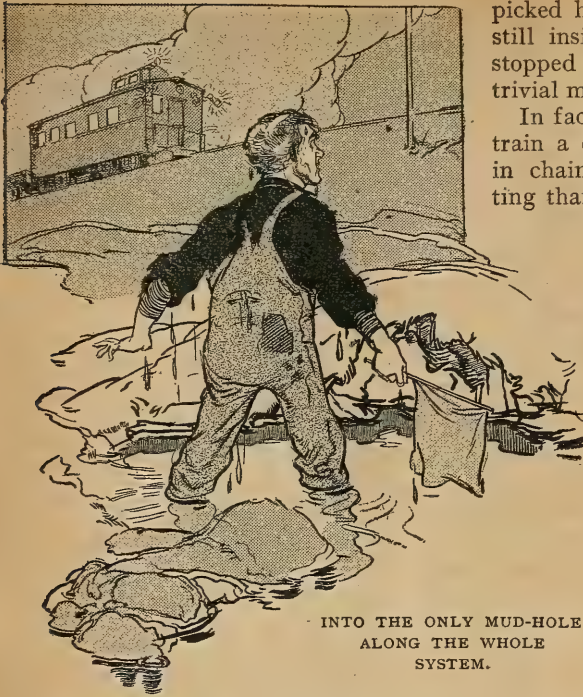
IF THERE WERE ANY MORE RED LIGHTS, IT WAS BECAUSE ALMOST COULDN'T FIND THEM.

Well, so long, fellows. Glad no one's hurt.

"All in a lifetime. Have to drag them along a bit now or the old man'll want to know if the 1180's got the rheumatics."

When we went over the train we found that the air had not been cut in behind the engine. Almost learned right there one lesson that I know of.

About midnight we tied up, cold and tired, and I guess Almost more than that. After I had turned in I heard Almost and Magirl talking out in their end of the caboose.



"Hurt you any?" asked Magirl.
"Have I hurt you any?"

"Not a bit," answered Almost, and then, after a pause: "Say, Joe, I'll have to go back there to-morrow."

"What for?" from Joe, who showed signs of a lack of interest.

"I lost my badge and the rule-book. Say—"

"Oh, fergit it!" replied Joe, and the next noise sounded like a snore.

But every trip did not prove so strenuous for Almost. Of course, there were those little times of pleasure when he had to drag a chain or put in a few brasses. There were times when cars took to the country, and we had to carry the frogs from the engine.

Almost's Little Jaunt.

And then there was the time that Almost and three loads drifted down the far side of the mountain, down through the tunnel, four miles of cañon track, over the big trestle, through Fairfield so fast that the operator reported that "one car just went by here," clear down to the Forks, where the flight was suddenly stopped by an open switch, and when they

picked him out from the cinders he was still insisting that he "almost had 'em stopped when they left the rail," but such trivial matters didn't touch him.

In fact, we had only been off the work-train a couple of months, doing our lap in chain-gang with nothing more exciting than fighting an occasional fire, until I noticed that Almost was growing pensive. He looked sick, and I suggested that he lay off for a few days and run down to Hulbrook.

He did, and when he came back he cornered me in the caboose and asked:

"Do you reckon I'll ever earn the right to sign the orders?"

"You sure will," I replied, "if you hang around long enough."

"Well, I tell you, Mr. Thomas," and that grin came into view again, "Mag—Miss Mahorney—says as how she thinks I'd be better satisfied

if I was an engineer, with wheels to work with, and I guess I'll try to get on a firin' the goat until they'll let me out on the road."

Now Almost never debated matters much, and when he "guessed" he generally made the guess good, and he never went back to my dog-house after that lay-off. Naturally he went out of my line of vision somewhat, but I saw him every now and then, leaning out of the cab-window of the switch-engine, and if the way he was ringing the bell was an indication, he was perfectly happy.

Business got good for yours truly, and with enough seniority behind me, I saw some pretty soft jobs on the division, so I scratched my feet when they itched and kept making the mileage and pulling down the pay-check. It seemed like the longer I worked the better I liked it, and every now and then when I walked over to the engine, I would find Almost swinging the scoop.

A Coming Man.

Gradually I began to take notice of the gossip at the terminal. They said that if there was one guy on the pike who could

keep the needle on the mark, it was that freckle-faced, narrow-gaged, grinnin' and a few other things, Almost.

They said he could calk a flue or set up a wedge or put in a lubricating glass, or anything else around one of those junk piles just as good as any hog-head on the pike, and, of course, I didn't say much, but I took a lot of credit for it.

If Columbus hadn't discovered America, of course we would all be living some place else, and if I hadn't discovered Almost he would still have been holding up the corner of the box-car station at Hulbrook.

It's funny how time flies. You drift into a town and go to work. Sleep a little, eat a little, and work a lot, and wake up to find that you've been hanging around four or five years.

I had bucked the extra board, played the chain-gang, and finally drew a blue suit of clothes and a string of band wagons, before I realized I had been riding up and down that pike for five years.

I don't know how the time seemed to Almost, but as I've been forced to remark several times, when he started

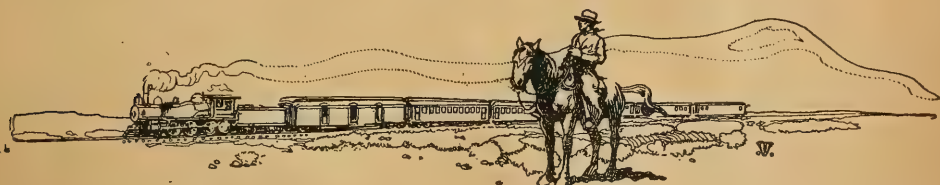
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something he generally was in at the finish. One night the call-boy tried to knock the door off the hinges calling me for special east, soon as possible.

After I had decided that it would be impolite to break the wash-bowl over the kid's head, after I had signed the finger-marked book and noted that there was no engine marked up, after I had yelled to him and asked who the engineer was and he replied:

"Don't know yet. First fellow I can git. Maybe Almost Benson," I say, after that I realized that Almost had set out about five years before to earn the right to sign orders, and I made a mental note of the fact that he had "almost" arrived.

Since that night I've had him on the head-end a good many times and I'm inclined to believe that Maggie Mahorney's advice was good, although there is a chance that there was an element in it which Almost did not recognize at the time. For since Almost has a regular engine, Uncle Sam has a new postmaster at Hulbrook, and Maggie told me herself that one night the new engineer almost proposed, and she did the rest.



AND YET OUR RAILROADS GROW.

IN 1909 the railways of the United States had a capital of \$15,000,000,000, which is almost equal in value to the country's entire property at the time of Lincoln's election.

Their gross earnings for a single year, \$2,600,000,000, are nearly three times as great as the whole of the interest-bearing debt of the national government.

The 1,500,000 persons on the pay-rolls of the railways of the United States represent a larger force than were under Grant, Lee, and the rest of the Union and Confederate commanders at Appomattox. They are a bigger army than Japan and Russia combined had in Manchuria, when, in 1905, President Roosevelt brought about the peace at Portsmouth.

The wealth of American railroads equals

the total wealth of all the Southern States, or Belgium, Holland, and Switzerland combined.

More money will be spent in 1910 in this country on cross-ties than England and Germany will spend on war-ships.

More wealth in coal will be consumed in locomotives than the world's naval powers will spend on war-ships—England, France, Germany, Russia, Japan, and the United States.

The locomotives will cost more than the maintenance of the English army.

The material—mostly from the steel mills—will cost the railroads more than all Europe will spend on armies and navies.

Car and locomotive repairs equal the bondholders' return.

BREAKING THE COMBINE.

BY WILLIAM S. WRIGHT.

When Men Are Bound Together for No
Good Purpose, It Is Well To Interfere.

CHAPTER IX.

Landing a Good One.



HE situation was more pleasant from the combine's standpoint, in view of the very excellent report which the two rival newspapers had of the proceedings at the Franchise Club. After a long and heated discussion at the combine, it was concluded that both Leigh and Allen had emissaries whose identity was unknown, but who, nevertheless, knew what news really is.

Burke was furious, and very broadly hinted to the reporters that if that kind of thing was to continue, he personally failed to see the use of a combine at all. The reporters, knowing that Mr. Burke was not in the habit of hinting uselessly in regard to his intentions, felt correspondingly uncomfortable, not only on account of the possible loss of the "snap" that they were enjoying, but knowing, too, that the "boss" was quite capable of blacklisting them in the event of his believing that they had not done their alleged duty by him.

Early that evening Allen called at the fifth precinct station-house. Maloney was again at the desk. The reporter, being a man of direct methods, said:

"And so, sergeant, you did your best last night to have me 'scooped'!"

"What d'ye mean?" growled the man behind the railings.

"Exactly what I say. You kept the matter about the church riot from me."

"'Twarn't on the blotter," snarled the sergeant, "and I'm only supposed to give you fellers what's on the blotter."

"Then, why did you give it to Halstead and some other of that crowd?"

"Look here," said the sergeant, "I ain't responsible to you for what I do and what I don't do. You do your business and then get out. See? But don't you come cross-examining me, 'cause I won't stand for it! Who are you, anyhow?"

Allen smiled sweetly, and in a manner that would have made a less obtuse person than the sergeant feel uncomfortable.

"Who am I?" he said. "Well, you know who I am. But, sergeant, nobody would ever dream who *you* were when they see you on the Speedway behind that mare of yours."

With a nod, he departed.

Two days later there appeared in the *Clarion* an article headed "A Thrifty Police Sergeant." It told of Maloney's life, his real-estate holdings, the approximate value of his personal property, a description of his two horses, and a detailed account of the sixteen charges upon which he had been tried during his professional career.

The article, furthermore, laid stress on the fact that the sergeant's luxuries and holdings were all due to his extreme economy, inasmuch as there were no tangible proofs of his having earned a penny outside of his income as a member of the uniformed force.

There was also a figured estimate of the value of his estate in general, by which it was proven that he must have saved at the rate of about four thousand dollars a year out of an average yearly income of one thousand two hundred dollars.

Then there were pictures of Maloney, Maloney's houses, Maloney's horses and

rigs, Maloney in uniform, Maloney as seen at the race-track, and Maloney in his driving costume.

Leigh laughed when he read the article. "You are setting the pace for me, are you, Jimmie?" said he. "Well, I'll see if I can't go you one better."

He followed up the attack on Maloney with more details of that unhappy officer's career.

The next two days passed in a somewhat uneventful fashion. On the morning of the third day, while Leigh was in court, Ahearne quietly slipped a note in his hand. It was to the effect that he would be at the office over the drug-store at about seven o'clock.

The big Irishman was on time, and this is what he told the reporter:

That before court had opened three of the parishioners of Father Podinski had called in order to obtain a warrant for the latter's arrest on charges of felonious assault. Scott, the warrant-clerk, and a protégé of Burke, had taken them into a corner, and, as Ahearne had overheard, told them to come back at four o'clock, when he would see that the warrants were ready.

He also warned them not to talk to the newspaper men. Ahearne, smelling a rat, had subsequently watched Scott, and saw him despatch a note to the Municipal after the court had adjourned at one o'clock. From this he inferred that another attempt was being made to freeze Leigh out.

"But when did the judge sign the warrants?" asked Leigh.

Ahearne replied that not infrequently a number of warrants were signed in blank, it being left to the discretion of the clerk to fill them up in the event of their being needed.

"If that is so," said Leigh, "when do you think that the warrants will be served?"

"Some time this evening," replied Ahearne.

"Do you know any of the complainants, Pat?"

"Wan. He keeps a shoe-store on Saunders Street. His name I don't know, because I can't pronounce it. But I know him by sight, anyhow."

"I tell you what, Pat. Can you spare the time to go with me to-night to the

priest's house, and if he is out we'll hunt up your friend the shoemaker. The reason that I ask you to go is that perhaps the shoemaker might suspect that I'm a newspaper man, and wouldn't talk, whereas he would certainly respect such a fine-looking cop."

Ahearne chuckled.

So the couple set out that evening and found that the priest was away from home. From the shoemaker they learned that he had been arrested and taken to a magistrate's house and bailed.

"Where is he now?" asked Ahearne quickly.

The little Pole looked at his questioner with twinkling eyes and replied that he "did not know."

"Then," said Ahearne, tapping his shield, "you'll come along with me and find him," and he scowled ferociously.

At this the shoemaker weakened and confessed that the priest had been bailed out by the proud author of a couple of tiny new additions to the Polack settlement who had counted on a christening that night, and that he was even then engaged in assisting in the celebration.

So he was found, and, being in a jovial humor, gave Leigh a capital story, with "frills," as Ahearne remarked. In fact, it practically "scooped" the combine.

CHAPTER X.

Buckling on Armor.

LEIGH was leaving court the next day when Halstead stopped him.

"Leigh," said he, "can I come and see you at your office this evening?"

"Why, certainly. Anything of a special nature?"

"Yes. But I'll talk to you when I see you."

Leigh felt that, somehow or other, Halstead's request was connected with the Podinski matter, but he was hardly prepared for the actual event.

Halstead kept the engagement, and he talked briefly but to the point. He had, in regard to the Franchise Club story, been practically accused by Jennison and the others of "peaching," and when the Podinski story appeared in the *Clarion* and the *Sentinel*, he was told, in emphatic language, that he was the leak.

At this he lost his temper and declared his intention of quitting the combine.

Would Leigh let him join forces with him and Allen?

"Is this straight, Halstead?" said Leigh, looking at him searchingly.

"I may have my little vices, Billy, but I don't think that lying is one of them," was the reply.

"Settled," responded Leigh. "Glad to have you, but we don't play poker, remember."

And the two men shook hands.

Allen laughed uproariously when he heard the news, and prophesied more defections from the ranks of the combine within the week.

"I think," said Leigh that evening, "that we'll next attend to our friend, the clerk of the seventeenth court. There's nothing like nipping these little conspiracies in the bud."

"But, how?" asked Allen.

Leigh explained that the presiding magistrate was a very close friend of the Lieutenant-Governor of the State. The Lieutenant-Governor was literally an old college chum of Mr. Bevins; for from alma mater days they had been more or less intimately connected socially and politically.

If Mr. Bevins would suggest to the Lieutenant-Governor the advisability of calling the magistrate's attention to the misuse, actual and possible, on the part of the court clerk of warrants signed in blank, and explain why, the issuance of such instruments would be stopped.

"And," added Leigh, "Mr. Clerk will be duly informed by me of the why and wherefore of his calling down."

Leigh kept his word, and things happened as he had prognosticated. But that did not prevent him and his associates from making caustic references to the clerk's action when the priest was arraigned.

The judge dismissed the priest on his own recognizances, and it went abroad in the court that it wasn't well to try to "scoop" Billy Leigh and his friends.

This was hitting the combine another blow.

There was a disposition on the part of certain of the Highburg hospitals to discriminate in the matter of news in favor of the combine.

Leigh remembered that a man in the press-room of the *Record* who had met with an accident had been treated at one of these institutions.

On his return to work, he had complained of the food, sanitary arrangements and methods of some of the doctors and nurses in the hospital. Leigh got the man to make a sworn statement, embodying his grievances. The next time that the hospital showed a disposition to hold back information, the reporter "sprung" the ex-patient's statement on the superintendent, intimating that on the basis of it and similar documents he proposed to call for a searching investigation.

The superintendent, a pompous, panicky little man, was badly frightened.

"You see," said Leigh artlessly, "you won't give us any of the news of this place, so we're going to make some news about it."

The superintendent took the hint eagerly. From thence on, the trio were kept very well informed about hospital doings in Highburg.

"I don't like this business of flourishing a club over the heads of people," said Leigh when discussing the affair with Staynes. "But public news belongs to the public, and when a man or institution tries to keep it back from the public there is only one thing to do—crack him on the knuckles."

The combine began to settle back into its old ways. Its spasm of energy was followed by a reaction. The attitude of the combine was this:

Leigh seemed to be getting the news in spite of its unwonted activity. So what was the use of working, anyhow? The election was coming on, and in the face of it and the recent action of the "big man," the newspapers of the combine would hardly dare to discharge its members.

Besides that, the indications were that Burke and his following would surely succeed themselves; hence, the combine would continue to let Leigh and the others sweat.

The combine would remain the combine, with its game, its rum, its free quarters, and its "bit" when it dutifully held its tongue or opened its mouth.

The one exception to the prevailing or-

der of things was found in the seventh precinct, in which Captain Hendrix held sway, one of the sergeants being his son-in-law.

Hendrix was an old-time policeman, retaining many of the unpleasant features of the days when the man in uniform was usually a bully, armed with a curse and a club.

He was in the station-house when Leigh and Allen visited it that evening, and returned their salutation with something that might be either a response, a snarl, or a growl.

There was a rumor of an elopement in the precinct. Allen turned to the captain and asked him if he knew anything about it.

"It's none of your business if I do," said the commander. "I ain't here to earn your salary for you by sneaking on other people."

"Quite right, captain," said Allen cheerfully. "Of course not. What goes on in your precinct is your business and nobody else's—not even the public's—unless the newspapers make it so."

"What d'ye mean?" said the captain.

Allen turned to Leigh. Leigh shook his head, and the pair departed, leaving Hendrix looking uncomfortable and mystified.

"Why those words?" said Leigh when they were outside.

"Dunno," replied Allen. "I simply wanted to throw a little 'con' into the cap."

"From small events these huge events arise," quoted Leigh, after some meditation. "You've laid the train for an explosion, Jimmie. You have induced thoughts. Don't ask me what it is just now. I'll tell you to-morrow."

To-morrow came and Leigh spent what hours he could spare in certain municipal offices. He held earnest conversations with certain officials of his acquaintance. He took copious notes from official tomes, and that evening he addressed Allen thus:

"I'm going to visit Harrow Street Casino to-night. Will you come along, Jimmie?"

"Anything in the wind?" asked the other.

"Very much," was the reply. "And I'm going to take this along." So saying, he opened a drawer in his desk, pro-

duced a revolver and slipped it into his hip-pocket.

Allen looked on with anticipation.

"Guess I'd better carry a gun, too," said Allen.

"It would be wise," replied Leigh.

CHAPTER XI.

Leigh and Allen Cornered.

THE Harrow Street Casino was situated in the heart of Highburg, on a short side-street, the termination of which connected two of the busiest thoroughfares in the borough.

The Casino itself was a four-story brick structure of somewhat shabby exterior, but roomy within. On the ground floor was a barroom, at the rear of which were a number of billiard-tables. On the second floor was yet another barroom and a big apartment for dancing. On the third floor was a small theater and yet another bar.

Here the auditorium was so arranged that the seats could be removed in short order—as they were every night after the stage performance—a dance following.

On the fourth floor were a dozen or so of small rooms, in each of which, so rumor had it, were continuous card-games of all sorts and descriptions.

The Casino had a most unsavory reputation. Robberies without number and two or three fatal stabbing and shooting affrays were recorded against it. Since Burke obtained power in Highburg, however, the Casino had been left severely alone by the authorities and was running in full blast, a disgrace to the community. Its manager was a man named Neil—a big, burly fellow who had graduated from the Tenderloin of New York as a keeper and manager of dives.

A corps of bouncers, trained by himself, was a feature of the Casino.

On their way to the place, Leigh explained that the object of his current visit was to look the place over in order to obtain preliminary data for an exposé. He said that Allen's little bout with Captain Hendrix had reminded him that some months before it had been rumored that the captain was the virtual owner of the building.

Leigh's investigation in certain of the

municipal departments and private information which had reached him had proven that Hendrix had tried to cover his connection with the place by a series of first and second mortgages and transfers, but that nevertheless he, Leigh, had established the fact of ownership.

"But why the guns?" asked Allen, tapping his hip-pocket as he neared the place.

"Well," said Leigh, "Neil knows me—to his sorrow. When he first came over here—perhaps you have forgotten the story—I showed him up in good shape.

"His record was not exactly of the nature that a man cares to see in cold type, and he swore to do all kinds of things to me.

"On two or three occasions, when I ran up against him, he has shown an ugly disposition. He and his bouncers are a pretty tough lot.

"While I do not believe in guns, yet guns have their uses. They are like tonics—they act as preventatives sometimes.

"Neil will know that I have got an object in coming to his place, and should he cut up about it it is possible that we will get a story that will be outside the Hendrix question."

The two reporters passed unnoticed and unrecognized into the auditorium of the theater. The floor space was taken up by seats arranged around little tables, there being a quartet of chairs at each.

Two of the chairs facing the stage were taken possession of by the visitors. They ordered cigars, and apparently fixed their attention on the "artists," while, in reality, they were taking in their surroundings.

The place was fairly well crowded and the waiters were busy. The reporters had to wait some little time for their orders to be filled, and in the interval a young, rather pretty blonde, sitting at the table immediately in front of them, tried to call their attention to the fact that she was thirsty.

Suddenly her smiles disappeared, and, in their place, came a sudden look of alarm.

As she was looking directly at them, Leigh knew that some one just behind must have been responsible for the change in her demeanor.

In a moment he turned carelessly and

saw, at another table, Neil and Alderman Schmidt. The former scowled and spat as the reporter looked at him.

Leigh quietly reported the matter to Allen, whose face brightened.

"Jolly place for a scrap, Jimmie," he murmured. "These chairs will come in mighty handy."

The reporters' order was not filled, and Leigh knew full well what that meant—a remonstrance was thereby invited, which, by means thoroughly understood by dive-keepers, could be easily developed into a fight.

Leigh suggested to Allen that they take their departure. Outside of the theater floor somebody tapped Leigh from behind.

It was Alderman Schmidt.

"What are you doing here?" he said insolently.

Leigh replied that it was none of his business, whereupon Schmidt expressed his opinion of newspaper men in general and of Leigh in particular, in a tone that brought a number of persons to the landing, including several whom Leigh recognized as Neil's rough-and-ready bouncers.

"Get your back against the wall, Billy," whispered Allen. "Don't let them get behind us, and get as near the stairs as you can."

"Have you anything more to say?" said Leigh, as Schmidt paused for breath. "Because if you haven't we would be glad to know it. I am busy and want to get away."

Neil thrust himself forward.

"Well, you won't go away as you came in," said he.

"And why?" replied Leigh.

"Because I'm going to smash—"

Allen interrupted:

"I would like to remark, friend Neil, that you're not in your Sixth Avenue dive just now! And so if you put a hand on my friend or myself—you or any of your heelers—I'll make a hole in you that you won't mend with a needle and thread in six months!"

He whipped the revolver from his pocket. Neil checked himself suddenly.

"Why, you—" he began; but before he could go further Leigh's revolver had been produced and was handed to his companion.

"Jimmie," said he, "keep that crowd covered. And now, Mr. Neil and Mr. Schmidt, here is my note-book and here is my pencil. Talk away as hard as you please. I'm going to report you at length."

The battle-fire was in Allen's eyes, and there was no movement forward. The manager and the alderman, stung by the laughter of the crowd, availed themselves of the invitation issued by Leigh, and for ten minutes poured forth a turbulent flood of picturesque language, in which they said everything possible that could be said in a profane way about the press.

"Thank you," said Leigh cordially, "I'm greatly obliged to you; but you really must excuse us—we have other engagements."

He and Allen backed down-stairs, the little, wicked, black noses of the revolvers pointing upward as they did so.

"Well," said Allen, as they got outside, "we got our story, and it was hotter stuff than we had looked for; but it won't spoil your future story, will it?"

"No," said Leigh reflectively, "it won't. But in my story to-morrow morning I shall tell of Hendrix's connection with the place, and of course shall give you and Halstead all that which I have learned in that connection."

So the word went round Highburg that the trio had knives in store for those who sought to bring confusion to their faces. Hendrix and Maloney and their associates wondered what would happen next.

They did not have to wonder long; for the very next day there appeared in the three papers more about the Harrow Street resort, and the day following the *Sentinel* put on foot a petition to the mayor of Martport to close the Casino.

Burke was more wrought up over the matter than he cared to confess. Astute and unscrupulous as he was, he knew the power and product of aroused public opinion.

Criticism he looked for in the newspapers, but between that and specific and organized attacks on institutions with which he was identified was a totally different matter.

He knew, too, that men of his caliber were only possible and safe so long as the average citizen wasn't aroused. He was "sore" with the men responsible for the

rumpus, and Hendrix and Maloney got a picturesque calling down.

"Some of you stiffs in uniform," said the "boss" to the sergeant, "don't know enough to swallow after you've chewed. If you must scrap with something, I'll have you chased up among the goats, where you can scrap all day long. I guess a little sidewalk-pounding'd take some of the fat off'n your brains, as well as where your belt hits you. The next time you feel that you must try to queer a reporter, you come to me first and I'll tell you what to do. Understand?"

The sergeant understood—perfectly; and Captain Hendrix got practically the same rebuke from Burke, who added—"and you're in a 'good-night-to-you scrape,' cap, at that. That fellow Leigh is a bulldog when he once gets his teeth in.

"You may just as well close the joint or chuck up your job unless you make peace with him and his crowd. As for Neil and Schmidt, I'll attend to them dubs later.

"Meanwhile, if I were you I'd detail about half a dozen of the huskiest cops in my command to lay for that brace of mutts and give 'em locust pie for supper."

To a man of Hendrix's type, making peace was merely a matter of purchasing the silence of another.

CHAPTER XII.

The Meeting with Burke.

BURKE, yielding to that grim humor that was one of his saving graces, sent his name into the *Sentinel* as a citizen who desired to further the movement to "clean up" the dives. One evening, he walked into the reportorial room at the Municipal. All of the members of the combine were there with the exception of Griggs.

No game was in progress. Jennison was gloomily puffing a pipe; Bronson was stabbing his desk-lid with an ink-eraser. The others were doing nothing in particular.

"Evening, boys," said Burke. "Regular hive of industry, this. I s'pose Leigh's got away with all the news again and left none for you?"

The men smiled rather sheepishly.

"Well," went on the "boss," "what y' going to do about it? Seems to me that he's got this crowd cinched. He's not only held his own, but he's licked you to a standstill."

"He's just been lucky," growled Jennison. "And then, too, those curs, Allen and Halstead, have been putting him on to things."

"Humph," muttered Burke, "Halstead and Allen don't account for that," and he threw on the table the *Sentinel* with a denunciatory editorial marked with a blue pencil.

"No," replied Jennison, "that must be charged up against Hendrix's fool tongue."

Burke reflected.

"Look here," he said at length, "as the matter stands, Leigh has got the best of you—"

"Of all of us," interrupted Ely, a glint of mutiny coming in his eyes.

"I said of *you*," replied Burke, with an ugly emphasis. "He gets the news in spite of you, and he publishes it, too. Well, what are you going to do about it?"

Ely shrugged his shoulders, but did not reply. Neither did the others. Burke gave a grunt of impatience.

"How is it you managed to work your freeze-out game before, and yet don't seem able to do the same to him?" he asked.

"Leigh's a star man, you must remember," replied Jennison. "He isn't like those other chumps that we had to do with. He knows the district—"

"You bet he does," said the "boss," with a short laugh. "And for that reason I'm sorry that you didn't have sense enough to keep him in the combine. That's where I've got it in for this crowd. You let Leigh go."

"In fact, you forced him out. From all I hear, you were so cussed sure that you could drive him from the district that you didn't take the trouble to be even civil to him."

"You had to get his dander up right away, like the fools that you are. And it's getting on for election, too."

There was a rap on the door. Jennison opened it.

"Mr. Leigh would like to see Mr. Burke," said a waiter.

"Show him into my private room and

tell him I'll be there in a minute," said the "boss."

Then he turned to the others.

"Leigh's as gritty as he's clever, you see. It is a pity that you ain't the same. And if there ain't less chair-warming here this room will be to let."

He stalked out, slamming the door.

Leigh returned Burke's rather effusive greeting in a businesslike way, and after listening to some jollying in regard to his recent newspaper work and declining an invitation to drink, said abruptly:

"I wish that you would shut down on your games up-stairs, Burke. If you don't, I'll have to do what I'm really unwilling to do."

Burke looked at Leigh for a full half minute.

Then he said, pausing between each word:

"Billy — Leigh — you — have—certainly—got—a—magnificent—gall!"

"Not a bit of it," asserted the reporter.

"It's a plain proposition. Everybody who's in the know, and a good many who are not, are on to what goes on overhead. Incidentally, I've two or three sworn statements of ex-patrons of yours who have squealed to me. Thought it well to get 'em before I called on you, in case—"

"Case of what?" said Burke curiously.

"Case you didn't know what was good for you. Or in other words, if you refuse to close down—and we needn't waste many words over it—the *Record* is going for certain people and things in High-burg, as you know. The Municipal is on the list—at present. But, Burke, you've been good to the boys, whatever your motives were. Also, Allen and Halstead feel pretty badly over the idea of my ripping you up, considering that they have been your guests, and are now working with me."

"I want to say right here that they haven't given me a word about the games. I didn't ask them anything regarding them. I don't think that they would have told me anything if I had. So, taking it all round, I would very much prefer not to write up the Municipal; and I hope that you won't force me to do so. Of course, all this is in confidence."

Burke looked at the speaker curious-

ly. If he had been given to emotional relapses, one might have been forgiven for thinking that, judging the expression on his big rubicund face, he was now thinking deeply.

"You're a fair fighter, Leigh, and I believe what you've told me about Allen and Halstead. It's a pity—oh, it's a pity that you're not on our side. I'd have you managing editor— Well, never mind that. But if ever you're out of a job, come to me."

Leigh laughed lightly.

"All right," he said, "and much obliged. I don't think, though, that I'll have to trouble you for some time yet. But what about the Municipal?"

"Outside of your story, what will your people do if I don't shut down?"

"I'm not in the habit of giving away the intentions of my employers," replied the reporter.

"Of course not, Billy," said the "boss" hastily. "Of course not. I forgot myself. When do you want my answer about this?"

"Now."

Burke whistled. "I guess there's no chance of a compromise or diplomatic delay where you are concerned. But I'll let you know my decision to-morrow. Still what's the hurry for a day or two?"

The reporter hesitated. "Make it to-morrow, then, at two o'clock. I'm sorry that I can't give you any longer, but the fact is that my arrangements won't allow of my so doing."

"By the Big Potato, but you're a cool one, Billy!" said Burke, as he held out his hand. Leigh stopped at the door.

"I've had a hint given me," he said quietly, "that somebody may or may not try to stop my mouth with a bunch of greenbacks in regard to the Harrow Street Casino. I know that you're not the father of the idea, because you have never been reputed to be an idiot."

"I just want to say this," went on Leigh, "that if you know and are the friend of the man who thinks of attempting this thing—call him off. Because, if he tries it, I shall certainly run him out of business and out of town if I can. And I'd like to add that Hendrix isn't a young man. Besides, he's got a family."

"You told me, not so many weeks ago," said Burke, "that you were going to re-

ply in your own way to my offer to be—your friend; and you've certainly done so. Now, if I could make a mistake about you, you mustn't be hard on another who happens to do likewise. People have got to find out what kind of a fellow you are. Don't be too rough on them for trying to do so."

"Good night," replied Leigh. "But don't forget to pass the word to—you know who."

Burke looked after him as he left the room, pursed his lips, shook his head regretfully, and, calling for pen and ink, wrote a short, sharp note to Hendrix.

After some thought, he sent short notes to other police captains by special messenger.

Before this happened, and while Leigh was on his way to the Municipal, he had met and was stopped by Alderman Schmidt, who looked seedy and unhappy—totally unlike the aggressive individual of a few nights before.

"Mr. Leigh—" he began.

Leigh stepped aside. "If you have anything to say to me, come to my office and say it. I don't care to talk to you in the street."

"Just a word, Mr. Leigh, just a word," persisted the other. "Let up on us a little. Why not? You haven't shut the place up—but you've done just as bad; you've scared all our customers away. They're afraid we'll be pulled."

"You've changed your tone since the last time I saw you," replied Leigh contemptuously.

"Ach, what a fool I was—a thousand fools in one fool! And, Mr. Leigh, there's people who'll not forget you if you let up. They'll thank you one hundred times—yes!" He leered at the reporter meaningly. "Yes, more as a hundred! And send them to you! The thanks! In an envelope, maybe! Ha, ha! Think!"

Leigh glared at the alderman for a moment and passed on without a word.

CHAPTER XIII.

Busted!

IT was nearly midnight when Leigh returned to the office that night.

"Lots of news, eh?" said Leigh, as he eyed the busy writers.

"Heaps!" replied Allen.

"And the funny thing about it is," said Halstead, "that most of the stuff is 'station-house.' A fellow lost a pet white crow that speaks seven languages. Dutchman appeals to the cap of the eleventh to make his wife rush the growler more frequently. Male and female Weary Willies ask sergeants of the fifth to marry them."

"Um," mused Leigh, "seems to be a change of heart among the cops."

"Yep," said Allen jerkily. "And more than that. Doc Onslow, of St. Mary's Hospital—little beast that he is—rung us up about an hour ago to say that a kid, Sumpter Street way, had swallowed a pair of shoes."

"What?" cried Leigh.

"Pair of shoe-laces," explained Halstead.

"It looks to me, boys, as if there was something doing," declared Allen.

"I think," said Leigh quietly—"I think that we've busted the combine!"

"Mr. Leigh to the phone!" said an office-boy.

"It's me—Burke," came over the wire. "I just want to say that I'm closing down—up-stairs, you know—to-morrow. And, Billy, I'm getting tired of having this combine crowd around here. So I'm telling 'em to get out. S'pose you haven't got room for 'em up at your place?"

Leigh held a conference with his colleagues. Then he said to Burke:

"I can make room for all of them except Ely and Jennison, if they care to work with us."

"Good for you. The boys will be thankful, I'm sure. So long."

"As I told you," remarked Leigh, as he replaced the receiver, "the combine is busted."

Jennison had called earlier in the evening at the eleventh precinct station-house—where, in response to his query as to whether there was any news, Captain Gregory, commanding, spake thus:

"Yes, we've got one or two good stories. But they are not for you exclusively. Leigh and the others will get them, too."

"What in thunder do you mean?" Jennison demanded.

"Just this: Leigh and his crowd get nearly all they want, whether we give it to them or not. How they do it, I don't

know, and I don't care. But I do know that the people who refuse to give up to them get it in the neck sooner or later.

"Now, I ain't going to queer myself with Leigh by shutting down on him just to make things good and easy for your lot. See?"

"And, judging by what's happening in the newspapers, it is much safer and certainly more pleasant to be a friend of Leigh than otherwise."

"All right," replied Jennison threateningly. "I'll see what the 'boss' has to say about this."

"If I were you," answered the captain, with a smile that meant many things, "I'd keep out of Burke's way as much as possible until after election. And then perhaps you'll find it better to make yourself scarce altogether."

Later he tore up a personal letter from Burke in which he was requested to see that "all reporters got the news of his precinct." The other police captains did likewise.

And they knew quite well why they were so instructed. Burke and Burke's men had had quite a sufficient taste of Leigh, in view of the election.

How Burke again got control in High-burg is another story, and one that is illustrative of the fickleness of the public in its affection for municipal reform.

How Leigh was made secretary of the Citizens' League, the body that was mainly responsible for Burke's overthrow—is not that local history, too?

In later years he, having fulfilled many of his legal ambitions, was slated for an assistant district attorneyship on the Independent ticket. Burke threw the weight of his influence in his favor, and Leigh's election was the result. For the "boss" was like unto a windfall, having some rotten spots with intervals of soundness. He had a high regard for official integrity even if he did not himself possess it.

To his followers he said:

"Leigh's a safe man for the place. If we put one of our own fellows up, he'd know too much, and could work us if he wanted. But with Leigh, there's no chance of our getting the double-cross even if he won't show favors."

And there is a Mrs. Leigh, who was a Vincent.

(The End.)

Recent Railroad Patents.

BY FORREST G. SMITH.

Some of the Details Which Help to Form the Evolution and Progress of Railroading in the United States and Canada.

A NO CONDUCTOR CAR.—

With no intention of dealing exclusively with the inventions made by Mr. Rowntree, one of whose inventions is referred to farther on in this article, we feel compelled to refer, briefly at least, to a new departure in the line of the pay-as-you-enter type of car devised and patented, No. 949,131, February 15, 1910, by him.

It is generally recognized that on comparatively short lines such as branch lines, and on suburban lines passing through territory which is but sparsely settled, the employment of a conductor on each car is a source of expense which yields but little return, although it has heretofore been necessary.

The type of car shown in this latter patent is so constructed that the motorman may conveniently perform his usual duties and at the same time attend to the collection of fares from the entering passengers. To his controller-box are added a couple of levers by the manipulation of which he may control with ease any and all of the doors of the car, and the cash or ticket box is also supported upon the controller so that he may attend to the collection of fares.

His station is within the car, as there is no defined platform, and passengers both entering and leaving the car pass to either side of him, but not in front, so that his vision is at no time obscured.

DISTRIBUTING CAR HEAT.—

Passengers on railroads, no matter how comfortable they may be made in other ways, have noticed that the air in the vicinity of the seats is stuffy, even in the severest weather. This is due almost solely to the fact that the heated air-currents are allowed to pass to the forward part of the seat, and most naturally become confined and render the occupant of the seat uncomfortable.

Also, as is well known, car-seats are reversible, and when so moved the inclination of the seat changes. Mr. Frederic W. Butt, of Brooklyn, New York, has taken advantage of this fact, and has provided an automatic means whereby the seat of a passenger-coach will at all times be heated to the perfect comfort of the passenger.

The device invented by Mr. Butt, and shown in patent No. 948,309, February 8, 1910, consists merely in a deflector or baffle-plate which is mounted beneath the seat and is so connected with the seat-reversing mechanism as to direct the heated air-currents toward the back of the seat, whether it be in one position or the other.

TO PREVENT RAIL CREEPING.—

The ordinary tie-plate now in use, while effectual in preventing spreading of the rails, does not even assist in preventing creeping of the rails, and in fact, after it has been in place for a considerable time, will only loosely engage the rail.

Numerous attempts have been made to devise a tie-plate which would frictionally clamp the rail which it was intended to hold, but usually such devices embody wedges or clamping-bolts, both of which are undesirable in many ways.

G. A. Hassel, of McKeesport, Pennsylvania, has disclosed in a patent, No. 949,270, February 15, 1910, issued to him, a tie-plate construction which, while slightly more expensive probably than the ordinary plate, serves not only its primary function, but will also prevent creeping of the rails.

This tie-plate is in two parts—one of which is disposed upon the other, and each of which is formed with rail base engaging-flanges similar to those of the ordinary plate. Each part is further formed with spike openings, and these openings in the two parts of each plate are so located that

when the parts are assembled the openings do not exactly register.

As a result, when the spikes are driven through the parts and into the tie, the parts will be drawn together, so to speak, and consequently their rail-engaging flanges will frictionally clamp the base-flange of the rail, the flanges of one part engaging the base-flange of the rail at one side, and those of the other part at the other side.

The plate has been adopted by a large rail-manufacturing concern of Pittsburgh.



GUARDING THE GUARD-RAIL.

—It is at present customary to either merely spike down guard-rails or to secure them by means of tie-plates, but neither method insures the proper spacing of the rail from the main or track rail. It is true that it has been proposed to utilize spacing-blocks, but as these blocks are not rigidly secured in place, they are liable to lose their efficiency for this purpose.

It has also been proposed to connect the main and guard rails by bolts of sufficient length, but even with this expedient the employment of spacing-blocks, in addition, is necessary.

To combine the efficiency of the connecting-bolts and the spacing-blocks in a single device which possesses the advantages of both, Charles A. Allen, of Steelton, Pennsylvania, has secured a patent, No. 949,253, February 15, 1910.

It consists merely of a U-shaped member, which is placed between the main and the guard rails and is held in place by the bolts which are sometimes employed in securing these two rails together.



NEW P. A. Y. E. CAR.—Now that pay-as-you-enter cars have come into general use, efforts are being made to economize in platform space and yet retain all the advantages of such a car. In the ordinary constructions of such cars now in use, the employment of two doors instead of one at each end of the car adds considerably to the length of the car platforms.

In a patent, No. 949,717, February 15, 1910, issued to Harold Rowntree, of Chicago, Illinois, there is shown a structure in which this disadvantage is overcome and the seating capacity of the car is materially increased. In the car of this patent a railed enclosure for the motorman is provided upon each platform, or rather at each end of the car, for there is no defined platform space unless indeed it be this small enclosure.

Rearwardly of the enclosure, and within the body of the car, is arranged a swinging-guard which, when in one position, cooperates with the enclosure-rails in such manner as to prevent the entrance of passengers at the front end of the car, although when in the other position at the rear of the car it permits of such entrance.

This guard, which extends only about half-way across the car, takes the place of the usual doorway of such cars, and that side of the car opposite the entrance side at each end is entirely closed and affords a seating space which in the ordinary car is wasted. The exit doors for the car are located one inwardly, or, in other words, rearwardly of each guard.

Another feature of the invention resides in the fact that the opening and closing of the entrance and exit doors is simultaneously controlled by the conductor through the turning of a switch-handle upon the guard, resulting in the supply of current to a suitable motor operatively connected with the two doors at each end of the car.



A LOCKING JOURNAL-BOX.

—The theft of journal-box brasses is almost encouraged, in the present constructions, owing to the fact that the lids may be opened by any one. It is not desirable to have locks for the lids, for it requires too much time to open them when so provided, and yet it is desirable that some means be provided whereby the opening of the box may be rendered practically impossible except by the employment of a suitably designed opener.

A box which will secure the desired results in this direction, and will further present the advantage of having its lid held firmly in place in such manner as to exclude dust, is shown in patent No. 948,037, February 1, 1910, issued to Samuel T. Bole, of Philadelphia, Pennsylvania, and assigned to and adopted by the J. G. Brill Company, of that city.

The box is extremely simple in construction, and the lid is entirely removable, it being seated between a flange at the upper side of the opening of the box and a latch at the lower side. This latch is held in place by a strong spring, and is depressable to disengage from the lower edge of the lid, whereby to permit of its removal.

There is little or no possibility of removing the lid of this box except by the use of a special tool which has a portion adapted to engage beneath the flange at the upper edge of the opening of the box and a portion to engage with the upper end of the latch and depress the same out of engagement with

the lid when the tool is swung down. The upward pressure of the latch, as well as its inward pressure, both of which it exerts, serves to hold the lid firmly in place and prevent the entrance of dust.

A SAFETY COUPLER.—

While numerous devices have been offered to permit of the coupling and uncoupling of freight-cars without the necessity of the trainmen going between the cars, they have usually embodied rock or winding shafts, which are not only liable to become clogged with ice, but are seldom so constructed as to be operated by the foot of a trainman on the car while the train is in motion.

Mr. James R. Carmer, of Wilmington, Delaware, has patented, No. 948,205, February 1, 1910, a device for this purpose which apparently answers all requirements. Instead of employing shafts and the like, he makes use of direct levers, of which there are two at each end of the car, they being pivoted between their inner and outer ends, and having their inner ends connected to the coupling-pin at the respective ends of the car.

The outer ends of these levers project to the sides of the car, and are within easy reach of a trainman upon the car, so far as foot-manipulation is concerned, and they are as easily accessible by hand from either side of the car.

A SPIKE WITH TEETH.—

This month's search for new devices discloses a spike which must be mentioned, as it embodies features which are not to be found in the ordinary spike nor in others which have been proposed for adoption. The spike mentioned has been patented, No. 947,887, February 1, 1910, by John Dellwo, of Grantsburg, Wisconsin.

In its structure it does not differ from the ordinary spike now in use, except that upon its rail-engaging face it is provided with sharp ribs which are adapted to bite into the edge of the base-flanges of the rails which it holds. By doing this the spike serves not only its original purpose, but it also serves as a means whereby the rails are prevented from creeping.

In other words, it not only holds the rails to the ties, but also prevents creeping to any appreciable extent.

ECONOMICAL TROLLEY-HANGER.—

Necessarily the wheel-bars of trolley wires receive the greatest wear, owing to the impact given them by the

trolley-wheel. It is now customary when a trolley-hanger becomes worn to replace the entire device, with an attending expense. Robert S. McFeely, of Scalp Level, Pennsylvania, has devised a trolley-hanger so constructed that when the wheel-contacting part becomes worn it may be readily replaced.

In the patent, No. 948,899, February 8, 1910, issued to Mr. McFeely, it is proposed to provide the trolley-hanger with a wheel-contacting portion which may be readily removed and a new portion substituted when the original one becomes worn.

This portion is held in place by a spring-latch which is not affected by the passage of the trolley-wheel, but which may be readily manipulated by a lineman for the purpose of substituting a new one.

ANSWERS TO PATENT PROBLEMS.

W. W. M., Monroe, Louisiana.—Are there any patented devices for raising the journal-boxes of cars through the medium of the steam or air lines of a train?

A number of such devices have been patented and some are in use, as far as the assignment department of the Patent Office indicates. There is no apparent reason why such devices should not be practicable.

W. M. L., Atlanta, Georgia.—Is the gyroscope car an entirely new invention?

No. It is merely the carrying out, so to speak, of an old principle discovered about 1750 by a scientist by the name of Frisi. This principle has been merely adapted to railroading by parties realizing its value, and while it will in time probably mean a wonderful advance, it is nevertheless an "old idea."

W. A. B., Pittsburgh, Pennsylvania.—Is it advisable to secure protection in all foreign countries after a patent has been secured in this country?

By no means. A patentee should consider first of all whether the industries and need of each country, foreign to this, will demand or necessitate the advance which he has made.

A careful study of the needs of each country is necessary before one can judiciously determine whether or not to carry his patent rights into foreign domains.



The Railroad Man's Brain Teasers.

Here Is One Right Out of the Shops, Boys!
How Many of You Can Solve It?

FROM H. A. Nichols, of Butte, Montana, we have received the following teaser:

In a building with eleven floors there are four elevators in use. For the sake of convenience they are designated as Nos. 1, 2, 3, and 4. They all start from the first, or ground, floor in the morning, beginning with elevator No. 1, at 7 A.M., sharp. No. 2 starts at 7:01 A.M.; No. 3 at 7:02 A.M.; and No. 4 at 7:03 A.M. The running time is such that No. 1 passes a floor every minute, No. 2 every $1\frac{1}{2}$ minutes, No. 3 every 2 minutes, and No. 4 passes a floor every $2\frac{1}{2}$ minutes.

For instance, elevator No. 1 starts at 7 A.M., and reaches the second floor at 7:01 A.M., the third floor at 7:02 A.M., and the eleventh, or top, floor at 7:10 A.M., from where it immediately descends on the same schedule; or No. 4 starts from the first floor at 7:03 A.M. and passes the second floor at 7:05½ A.M., and reaches the eleventh floor at 7:28 A.M., and immediately descends on the same schedule, reaching the first floor at 7:53 A.M., and then immediately ascends, and so on.

The problem is: When does the first chance occur, after starting in the morning, that all the elevators are at the same floor at the same time, and what time of day? Which floor is it? And what direction are the elevators going—up or down?

The answer will be published in our June issue.

Answers to April Puzzles.

(1.) It can be done in nine moves.

(2.) Distance: North-bound train, 100 miles; time, 2 hours 5 minutes. Speed: 48 miles per hour.

West-bound train.—Distance: 100 miles, plus 440 feet, equals 100 $1\frac{1}{25}$ miles. Time: 2 hours 5 minutes, or 2 $1\frac{1}{12}$ hours; hence we convert the time and distance of the west-bound train into twelfths, which in the time is 25 twelfths, and in the distance $1\frac{201}{12}$ twelfths. Dividing the latter by the former, we obtain a speed of $48\frac{1}{25}$ miles per hour of the west-bound train. So $1\frac{1}{25}$ th of a mile is gained each hour by the west-bound train, and in 2 $1\frac{1}{12}$ hours the gain will be the product of 2.0833 hours multiplied by $211\frac{1}{2}$ feet, which gives 439.999 + feet, or approximating the length of the train, 440 feet. Two and one-twelfth hours, decimally, is 2.0833, and $1\frac{1}{2}$ of a mile is $211\frac{1}{2}$ feet.



ON THE EDITORIAL CARPET.

This Is Where We Gather in the Hut, Boys, Tell Our Troubles, Listen to Yours, and Sing a Few Old Songs.

IN spite of the pleasure that we naturally take every month in talking about what we are going to do the following month, it sometimes becomes quite a difficulty to do it in what we feel to be an adequate manner. It is all very well for us to sit here and describe, month by month, how we are going to put on a record-breaker for the next month; but, at the same time, it is mighty hard to convey a true impression of the care we have taken in testing every cylinder, bolt, crank, and gage in order to be sure that our engine will pull up every grade without blowing itself to pieces.

We might tell you that we are going to give you such and such a good story, or such and such a good article, until we have blown every bit of our steam-pressure through the whistle; but, beyond making a certain amount of noise, this would be the only result achieved if we did not convey to you the fact that there is not any other line where you can come across rolling-stock at all like that which we are at considerable pains to gather together.

What we want to convey to our readers is that we are trying to create for them an absolutely new class of stories and articles. Now, we want to know if our friends believe we are doing this.

So when we come out and specifically tell you that a certain story has everything else scared off the right-of-way, we would like you to just switch in and couple on to a pen and a bottle of ink, or even a stub of pencil and the back of a requisition form, and tell us what you think about that story.

Don't be afraid that we will put a derail under your front trucks and ditch your little effort into the waste-basket. We won't. We are always mighty glad to be in personal communication with our readers, and we don't fuss to ourselves like a leaky cylinder every time somebody comes along and tells us to jack up our boiler and put new gears under her.

Now, for instance, we are going to tell you what we think of our June number. When you have read the stories we mention just break in on our wire, and let us

know how much you think we don't know about it.

There is one feature that we are absolutely confident you will welcome. It is the opening story of another series of "Honk-and-Horace" yarns by Emmet F. Harte.

You will remember that the genius of Honk and the industry of Horace had created an ideal little town called Valhalla of the Hills. You will now learn how Honk administered and regulated this Utopia, and how Horace played the part of his *Grand Vizier* and *Pooh Bah*, in keeping undesirable citizens from bursting in upon their chaste atmosphere.

Besides this story, we have two other fiction stories which we consider among the most powerful we have ever published. One of them is a story by Nevil G. Henshaw, a writer who is in our pages for the first time; and the other is by Edward C. Fellowes.

Mr. Henshaw's story is a cowboy yarn of unusual type, while Mr. Fellowes's story is a tale of railroad construction, in which a steam-shovel plays a prominent and tragic part. It will probably be called "Bucephalus, Avenger." We particularly want to know what you think of these stories.

Perhaps the most important feature of our June number, however, will be Gilson Willets's first collection of stories sent in from his new tour. They will be published under the title of "Ten Thousand Miles by Rail." We only need promise you that they are in every way equal to all the other stories that Mr. Willets has gathered from railroad men and given back to railroad men through this magazine.

And, incidentally, we thank those of the boys who gave Mr. Willets such splendid yarns. You're a lot of bully fellows—and may your sand-domes never grow gray.

Another unique feature will be the true story of a man whose passion for excitement has been more than satisfied through vivid experiences in twenty-six wrecks.

Our old friend, Robert H. Rogers, will be along with a mighty fine article on "The Roundhouse Foreman."

Besides this, we are going to do something which has never been done in America before, and we are not sure it has ever been done anywhere. That is, we are going to give a sketch of Anatole Mallet, the inventor of the Mallet articulated compound engine. Nobody should miss this.

Now, please try to bear in mind what we said about switching in on us. Remember we really want to hear from you. Let's!

J'int ahead for June!



TRIBUTE TO THE SHACKS.

ONE of our readers sends us the appended poem—a worthy tribute to the freight-brakeman—and, certainly, he deserves to be immortalized in verse. The poem was taken from the *Mauch Chunk Times*, and was printed some time in 1895. Listen, brother shacks:

A BRAKEMAN'S LIFE.

BY M. A. MURPHY.

'Tis 12 o'clock and the midnight freight
Is ready for to start;
They are waiting for their orders,
And the signal to depart.
The night is cold and cheerless,
No star bedecks the sky,
And shivering stands the brakeman,
While moments slowly fly.

How little do ye people know
The struggles and the strife,
The hardships and the dangers,
That beset a brakeman's life.
When lightnings flash and thunders peal,
Midst storms of snow or rain,
You'll see these fearless brakemen
At their post upon the train.

I wonder what's the reason,
Why some people shun them so,
And cast reflections on them,
No matter where they go.
They little know the anguish
That their cruel words impart,
And how they wound the feelings
Of a noble brakeman's heart.

Before he leaves he'll kiss his wife
And little ones, good-by,
And kneeling ask a blessing
Of our "Father up on high."
And though the night is fierce and wild,
He falters not nor fears;
And the fierceness of the storm seems but
As music to his ears.

Onward over hill and vale
He goes with lightning speed;
He seems but as a specter,
Behind that fiery steed.

Though snowflakes gather round him,
The wind may sigh and moan;
He sits upon his freight-car,
Like a king upon his throne.

Toot! He hears the whistle's blast
Call loudly for "down brakes!"
How quick responds the brakeman,
From his reverie he wakes.
But hark! A noise, a frightful crash!
A grinding, hissing sound!
And far beneath the wreckage soon
A mangled form is found.

A shattered home, an orphan's tears,
A widow in despair,
And brothers of the B. R. T.,
In goodly numbers there.
Though sad and lonely she may be,
No want, nor dire distress
Shall enter through that cottage door,
A widow to oppress.

For like a ministering angel,
Our brotherhood is there,
Within this lowly cottage
Alike their sorrow share.
No bigots there shall slight him,
Nor scoffers cause him pain;
He has gone to help his brothers brake
On God's own Heavenly train.



WE DIDN'T SAY IT WOULDN'T WORK.

SEVERAL letters have reached us from evidently well-informed friends, objecting to the answer given "J. W.," Leavenworth, Washington, in the March "By the Light of the Lantern." This reader wanted to know whether the injector, presumably on a locomotive, would work with the injector-check placed on top of the boiler. We replied in the affirmative, as the pressure opposing the instrument would be the same in that case as in the usual practice.

This, no doubt, was satisfying to the correspondent, and we should have stopped there; but we didn't. In a moment of enthusiasm we allowed a little personal prejudice to intrude, and declaimed with some bitterness against the innovation, which pardonable zeal for a cause has resulted in a slight scorching in the frying-pan.

Our friends hasten to assure us that many examples of recent locomotive construction have the checks as located, and that our objection to discharging the relatively cold water into the live steam space is easily taken care of by piping it from the check to any point in the interior of the boiler where it is considered good practise to deliver it.

It thus appears that a nightmare, as it first appealed to us, can be resolved into a

feasible scheme, after all, and that we were a little behind the procession—in this particular instance, at least—in not keeping up with new departures.

We are admitting all this with cheerful candor, in spite of the fact that we were all right in our answer. It was first feared in reading these kind criticisms that we had been heavily scored on, but we are scarcely even mussed up.

We never said that the altitudinous boiler-check wouldn't work. In fact, our verdict was just the reverse; but we didn't like it, and proclaimed our disregard with its whys and wherefores. Now that we have gone on record, we are going to stand by our guns in this personal opinion. Some of us not so far from this office have pounded checks and tinkered with injectors for over twenty years, both on and off the road, and the chance in "J. W.'s" question was too good to miss our little say, although, of course, not until after a direct reply had been made.

We believe that less than one-half of one per cent of all engines in the country, at this writing, embody this questionable improvement, and are equally confident that it will never be received with general favor by motive-power management. We are now going to fortify ourselves with some interviews to support the latter assertion, and will probably have more to offer on the subject next month.



ONE MORE.

ONE more *wanderlust* classic. And of the many that we have printed in this department of our magazine, this is one of the very best. The author sent it from Oakland, California. He states that he is a reader of this magazine and a railroad man. At any rate, he is some poet as well:

THE HOBO LINEMAN.

BY A. M. S.

UNDER the spreading jungle tree
Three lazy hoboes slept
While o'er their prostrate bodies
The red ants gaily crept.

The sun poured down from heaven,
A flood of golden light,
But they heeded not, for they slept by day
And rode the freights at night.

Their adventurous dispositions
Deserve a better cause
Than trying to beat the railroad,
And break the country's laws.

But still they keep on going,
Content what comes their way,
As they eat with untold relish
Their one poor meal a day.

They have no trials, no worries,
They take life as it comes,
This bunch of social outcasts,
This horde of lazy bums.

But each one has a story
Of how it came to be,
And I'm going to tell the stories
That some have told to me.

The first was the son of a preacher
Who's took to hobo life,
Because some other fellow
Departed with his wife.

Another missed his calling
And blamed it all to fate,
Then realized his error
When he found it was too late.

The third, well, his is the story
That takes a while to tell—
A story of zigzag coursing—
The tale of a man who fell.

"Back in old New England
In the shade of the granite hills,
My boyhood home and ambition,
There I went the pace that kills.

"My dad had a paying store there,
But he died a bit too soon;
For when he left it to me,
I changed the place to a saloon.

"My wife was a lovely woman,
Whom I schooled with when a boy,
Did she love? With a love as pure, man,
As gold without alloy.

"But I learned to love the booze, boys,
As I drank it I thought it fine,
Until I was never myself, but had
A skinful all the time.

"My wife soon died of grieving,
And I planted her 'neath the pine,
And ever since that occasion
It's been hard lines for mine.

"I've tramped the States all over
From Maine to Mexico.
And I guess I'll keep on tramping,
Till I'm landed down below.

"I'm a tramp and you ask me why, boys,
Why? For greatest curse on earth!
The stuff that kills ambition
And shatters the family hearth.

"And so, boys, that's the reason,
I'm headed now for the East,
I'm going to Old New Hampshire
To have my annual feast.

"I always get the spring fever,
And have to hit the road,
With a pair of hooks upon my back,
For that's my daily load.

"I've hiked for the Western Union,
The Postal, too, as well,
Have shinned poles all over the Union,
And worked for the Rocky Mountain Bell.

"But my days will soon be over,
And things will then be bright,
I'll end my stately poem,
And I wish you all, 'good-night.'"



GRADES YOU CAN CLIMB.

WE don't know who was the man who first made use of the expression, "God helps those who help themselves," but he was a man with keen insight into human nature, and he must have had a fine, healthy working knowledge of the Lord. In our humble opinion this man ought to be found out and be placed along with Shakespeare, Josh Billings, and other master minds, who could put the wisdom of a thousand essays into one sentence.

All this has to do with the query that occurs to us sometimes, why does a man who wants a job as a brakeman in Tuscaloos, Minnesota, write to New York to the innocent and unoffending editor of THE RAILROAD MAN'S MAGAZINE to find out how to get it? He probably lives next door to the man who would hire him if he just got out of his slippers and put on his shoes and rang his neighbor's front-door bell.

Understand, we like to have you write, and when we can help you, we like to do it. Also, if you feel that you want to write to us before you go and ask the man across the street for a job, do it; but, bless your life, for all the good it does you in helping you to get the job, you might as well write to a fortune-teller.

We think our reputation for wanting to help people is a pretty good one, and it's because we really do want to help you that occasionally we turn round and tell you how to help yourselves. Sometimes it's just a matter of stopping to think.

For instance, most of the men who write to us for advice as to how to get positions know what road they want to work on. They know what the division point is that they want to hire from; then it's a matter of knowing what official hires that particular class of men.

You don't have to know the name of the official. You know that the train-master hires brakemen; the master-mechanic probably hires firemen and engineers.

The roundhouse foreman hires most of the grades of roundhouse men. The shop foreman or superintendent of shops hires machinists, and the chief clerk of the freight or passenger departments hires his staff. The chief despatcher usually hires the operators.

Of course, there are some slight differences of practise on various roads, but if you are in doubt you can always get exact information by writing to the division superintendent. If you want a position as a Pullman porter or conductor, you will find out the district headquarters for your section and write to the district superintendent of the Pullman Company, and if you don't know it, write to the headquarters at Chicago and they'll tell you.

There are, we know, conditions where a little advice from us might be useful and valuable, such as employment in foreign countries, or in different localities from the one the writer lives in, and we are very glad to give you the best of our information. What we are trying to do is to save you time.

Incidentally, before writing, remember that, although the editor's heart is large, his mail-bag is apt to be pretty nearly as bulky.

Above all things, don't misunderstand us. We like to have you write. We like to hear about your troubles and about your success, and we like to get you on the road to saving you the one and getting you the other with as little waste of time as possible.



KIND WORDS AND A CORRECTION.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

PERMIT me to thank you for the many pleasant moments which I have spent reading that most excellent magazine, THE RAILROAD MAN'S. It is certainly full of good, interesting reading, the kind that rail-roads and the reading public in general like.

Your "By the Light of the Lantern" department has been a great benefit to me. I found many questions answered there that I needed in my examination for engineer.

I have been a locomotive fireman now for five years and three months, and have just succeeded in passing part of my examination for engineer. We have to pass on train rules, machinery, and the Westinghouse air-brakes, so you see it requires considerable study to pass successfully.

We are rather well paid here in comparison to other places.

We make \$2.88 for our division of 104 miles for engines weighing 140,000 pounds or over. Under that weight, \$2.65 and \$2.55.

Passenger firing pays \$2.30 per hundred miles. Engineers get \$4.50 on freight and \$4 on passenger trains per hundred miles.

In your March issue your answer to E.

M. B., Wheeling, West Virginia, was slightly wrong.

The woman was never employed to run an engine on the Laurel Fork and Sand Hill (as the road from Volcano Junction to Volcano was known); but was the wife of the regular engineer and ran merely for the pleasure of it.

A woman named Hewit used to handle the engine on the C. and K. V., a narrow-gauge road from Cairo to Macfarlan, West Virginia, some years ago, but was not regularly employed.

The old road to Volcano had long disappeared, and the road abandoned, as there is no business there now, the oil being pumped out, except for a few wells.

The road I am employed on—Baltimore and Ohio (Monongah or "fifth division"), is certainly very rough. It contains twenty-three tunnels and fifty-two bridges. The tunnels are from seven-eighths of a mile to two hundred yards in length, so you know what a job the engine crews have passing through them.

TALLOW POT.

A TRAVELER'S TRIBUTE.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

I HAVE been a constant reader of "THE RAILROAD MAN'S MAGAZINE" since its birth. It is the only diversion I care to indulge in. The snow-storms in Wisconsin have been disastrously frequent, and while waiting this evening for a prodigal North Western, this poem drizzled through my head:

THE DAY IS COLD AND DARK AND
DREARY.

(With Apologies to Longfellow.)

THE day is cold and dark and dreary,
The trains are late, and the people weary;
The crowd still clings to the depot wall;
And at every gust, their thoughts all fall
On the day so dark and dreary.

Our life gets cold and dark and dreary,
When trains are late and weather weary,
Our minds still cling to the smoldering past;
The rest of the year—on time—running fast.
And the day is cold and dreary.

Be still, my friend, and cease repining,
For here she comes, with headlight shining,
Thy fate is the common fate of all,
Through each snow-storm some train must
crawl,

Some days must be cold and dreary.
B. B. L., Chicago.

TWO LETTERS.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

FOR fifteen years I have been railroading, most of it in Mexico, the place, to quote you in the article in your February

magazine, entitled "Being a Boomer Brake-man," "it's better to keep on this side of the Gringo belt."

I have also read other pieces in your magazine taking a slap at Mexico and her railroad laws, and can quote you them, if you wish, for I have the magazine from No. 1 to date.

This is not a bouquet, so I hardly expect to see it in print, but it would be a good idea for you to do a little investigating, as you claim to do before printing as truth, articles of this nature. You are talking to a good many thousand railroad men, and we all like the magazine, BUT—let us have the truth about that country.

Mr. Herr says, "If ever a train—a freight train, at least—made running-time in Mexico, it is not recorded on the books of national history." And he draws his conclusions from the only place in Mexico where all trains are not almost invariably on time—the only division in the Republic where conditions are so bad on account of poor water and long desert stretches, that it takes a first-class railroad man to get over the road on time, and where hoboes and boomers are the rule—and who expects them to make any time anywhere, except a meal-ticket stake?

He gives us the impression that he worked for a full month, and drew down eighty dollars, Mexican. The pay-schedule will show, on the Mexican Central, that that could hardly be, unless he classed himself as a Mexican. They don't pay by the month. They pay by the kilometer, and a good rate of overtime is paid for all that is made.

And the judge said, "Not Guilty," and imposed a fine upon them of sixty-four dollars, eh? Rats!

I worked as timekeeper on that Chihuahua Division, and I broke and ran train there. I worked at Jimulco and out of there, and a finer set of Mexicans composing the official element there I never hope to see anywhere.

Just the same, when a hobo goes against the Mexican booze he gets slapped into the jail, and kept there till sober, and why shouldn't he?

In the second place, there is no one in Jimulco with authority to try a case of that seriousness, i.e., throwing a woman from a running train. They would be taken to Torreon. Furthermore, if they could show the woman was beating her way they could have her arrested, whether she was hurt or not.

And those salt mines. I heard about them for months, till one day, when I was running train on the National, out of San Luis Potosi, I went to the office and took a lay-off for ten days. I put in that time endeavoring to locate those salt mines, in which prisoners suffered such pain. I never found them. You prove every tale you print. Where are they, please?

I ran trains down there on three roads, and had several accidents. Yet I never

spent a day in jail, and was only called upon to give my evidence in court three times, each time being courteously treated by each Mexican official with whom I came in contact.

The day of "high-ball" is past. The railroad man now is too well educated, and too quiet a family and home respecting man to believe these tales. "Mexican law made for the Gringo. Booh!"

L. KNIGHTSON, Los Angeles, Cal.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

AFTER reading Mr. Knightson's criticism on my remarks concerning Mexico, and reviewing the article to which he takes exception, I am convinced that even Mexican law would concede that I am guilty, as indicted, only on a technicality, and that there is no evidence of malice aforethought, or intent to criminally misrepresent the conditions.

It may be that Mr. Knightson formed his impressions of Mexico under more favorable circumstances than I, and he certainly must have had more time in fifteen years to acquaint himself with conditions and surroundings than would any man in the brief span of a year.

I simply made a brief mention of events which came to my personal notice, and must insist that they have not been distorted or sensationalized.

The statement, "If ever a train—a freight-train, at least—made running-time in Mexico, it is not recorded on the books of national history," appears especially obnoxious. That any one should read such a sentence, and take it seriously, reflects an amazing denseness on the part of the reader, or a very lamentable crudeness in the author's efforts at humor.

However, since I am on the defensive, I must insist that the statement, as it stands, is absolutely correct, as the "books of national history" make no record of freight-train performances.

As a matter of fact, the wonder is that freight-trains are able to cross certain sections of Mexico at all. Bad water, poor coal, and a hundred other things handicap them, and I found it to be a fact that even first-class railroad men not infrequently had a few hours overtime marked down on their trip-slip.

Regarding the pay for brakemen, let me say, that, to my personal knowledge, one young man whom I have known from his youth up, worked on the Mexican Central for one month, and when he cashed in at the pay-car, he drew down eighty dollars, Mexican money.

He did not exactly class himself as a Mexican, but he had a braking partner by the name of Juan Martinez. Juan is neither a German name nor a Shamrock trade-mark, and this youth has always believed that Juan was a Mexican Indian. Juan and this acquaintance of mine used to sleep under the

same blanket, and Juan owned the blanket, too.

We both frequently sought the by-ways and hedges for passengers who were asked to contribute to the general fund, and in such hunts they often found women riding in the coal cars and box cars. Sometimes they were put off the train, but no one ever thought of having them arrested, which brings us down to the questions of Mexican law.

Jimulco, a few years back, had a magistrate. It also had an adobe jail. Any one desiring further information on this point might communicate with Mr. Charles Wilson, of Fredonia, Kansas. He was in Jimulco at the time of the trial referred to in the article under discussion, and he will undoubtedly tell you that the two Americans were tried on a charge of throwing a woman from a train; that the evidence justified an acquittal, and that among other punishments ordered by the magistrate, was the provision that the Americans should pay the woman a dollar a day, until she had recovered her injuries.

The Mexican statutes are above my criticism, but there are hundreds of cases to show that, in isolated villages and districts, law plays less than prejudice in the trial of Americans.

I believe that Mr. Knightson must admit that the average Mexican cherishes little affection for the Gringo. As education and civilization advances in the Mexican Republic, these conditions will change; they are less noticeable now than they were five years ago.

Mexico City to-day is one of the most beautiful, most romantic, and most cosmopolitan cities of the world. The rights of the foreigner are respected, and he is a welcome guest, but Mexico City is only a small part of Mexico.

The isolated Mexican hamlet may appeal to some, but pardon me if I refuse to grow enthusiastic over it.

I agree that the "truth about Mexico" would be interesting reading, and when the whole truth comes to light there will be pages of it which will make a Balzac novel look somewhat like a Sunday-school paper along side of it.

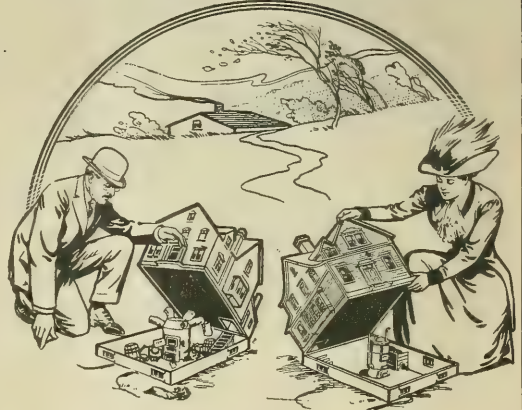
H. H. HERR, Kansas City, Mo.

MISSING MEN.

ONCE more we wish to state to those of our readers who request us to insert notices in this department for missing friends and relatives, to send us, with their request, a letter from the firm that last employed the missing man or from some other reliable source to show that he is really missing. Anonymous or initialed letters relating to this or any other subject will not be considered.

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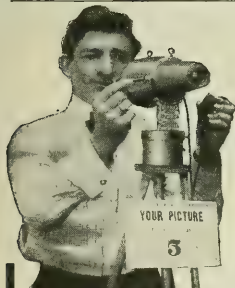


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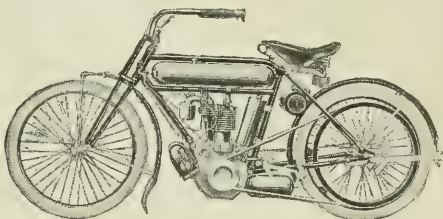
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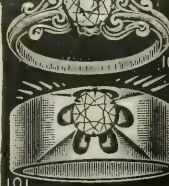
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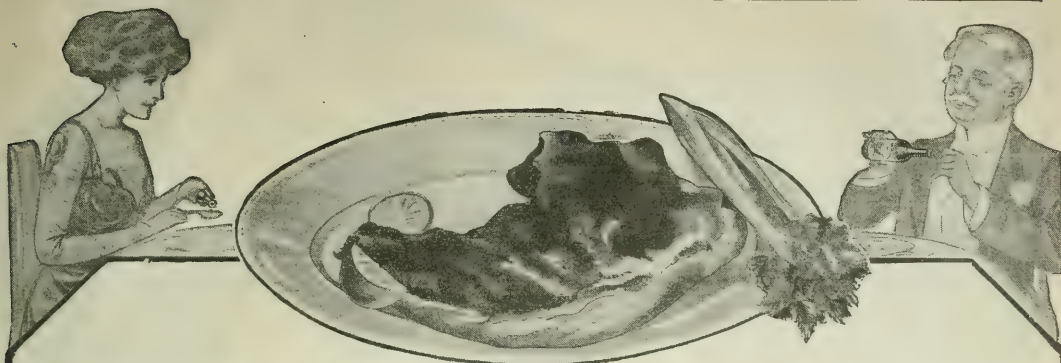
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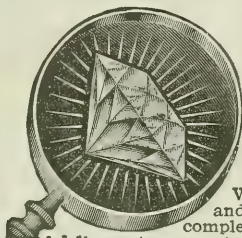
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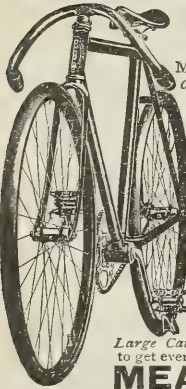
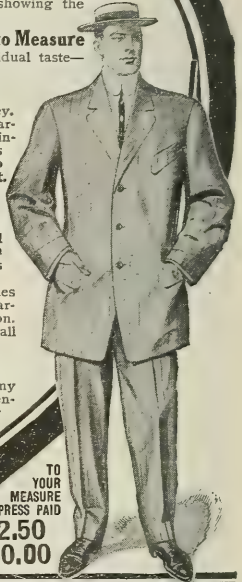
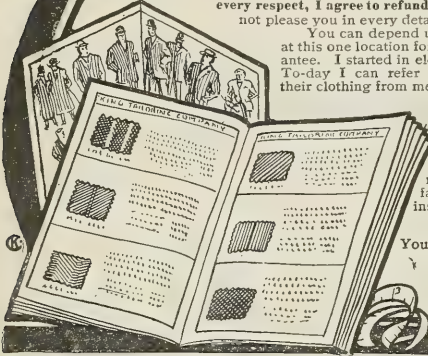
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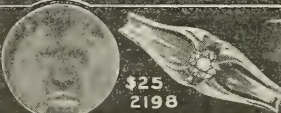
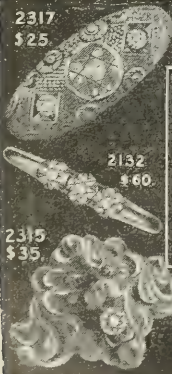
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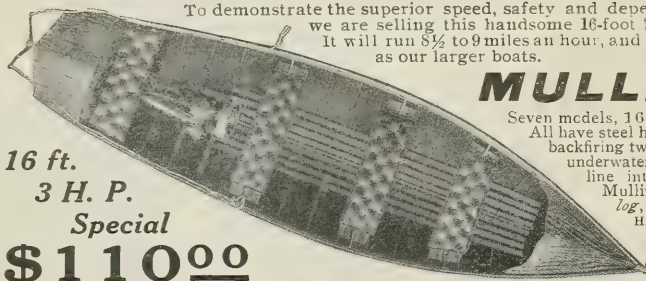
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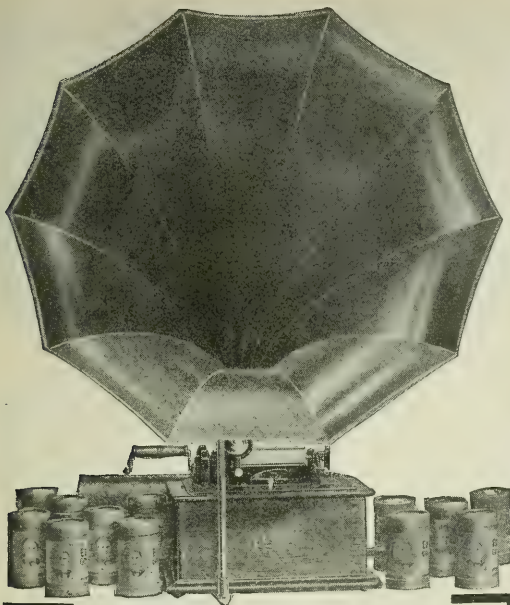
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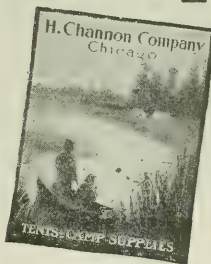
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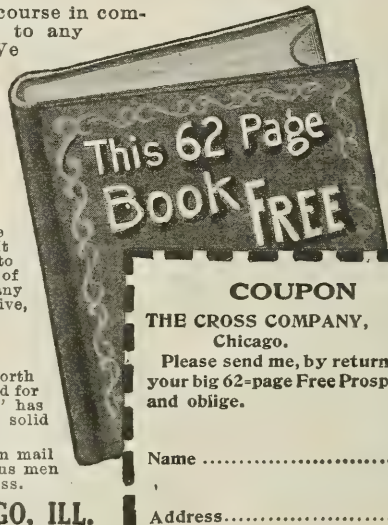
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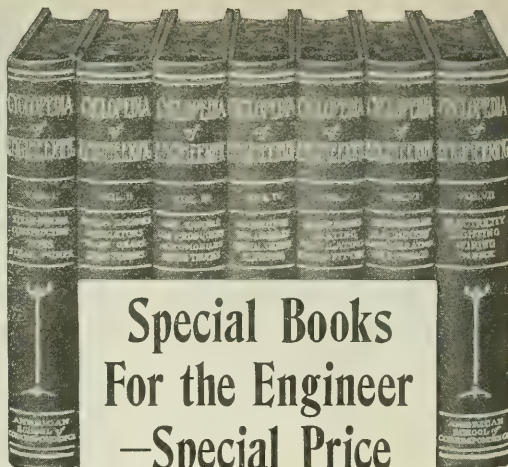
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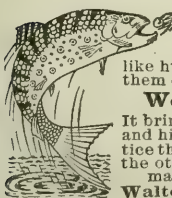
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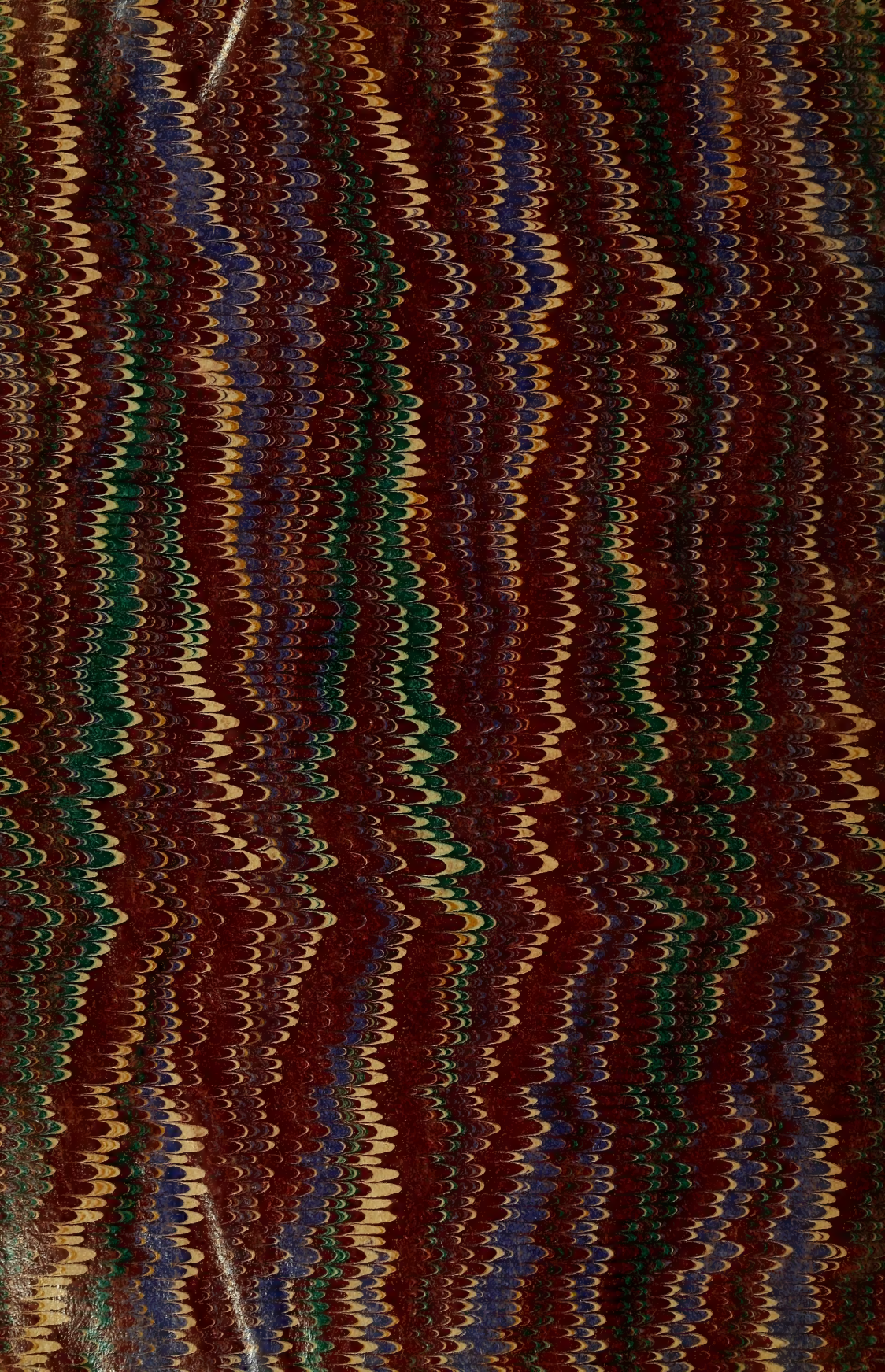
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